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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:06; Search time 43.3077 Seconds

(without alignments)

71.766 Million cell updates/sec

Title: US-09-787-443A-14

Perfect score: 11

Sequence: 1 ARKTRERKSKD 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1586107 seqs, 282547505 residues

Word size:

Total number of hits satisfying chosen parameters:

22883

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: A Geneseq_29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

			8						
F	Result		Query						
	No.	Score	Match	Length	DB	ID	Descripti	Description	
	1	11	100.0	 11	3	AAY88542	Aay88542	NCAM Igl	
	2	11	100.0	11	5	ABG69342	Abg69342	Human neu	
	3	4	36.4	11	2	AAW40399	Aaw40399	NNOS bind	
	4	4	36.4	11	5	ABB74475	Abb74475	DNA repai	
	5	4	36.4	11	5	AAU96240	Aau96240	Class I G	
	6	4	36.4	11	6	AAE34290	Aae34290	Human 5-h	
	7	4	36.4	11	6	AAE34216	Aae34216	Human 5-h	
	8	3	27.3	11	1	AAP40439	Aap40439	Sequence	
	9	3	27.3	11	1	AAP40131	Aap40131	Clones pJ	
	_						<u>-</u>		

]	10	3	27.3	11	1	AAP40132	Aap40132 Clones pJ
	11	3	27.3	11	1	AAP60142	Aap60142 Type 3 pe
	12	3	27.3	11	1	AAP91264	Aap91264 Tissue pl
	L3	3	27.3	11	2	AAR06754	Aar06754 Tumour ne
	L4	3	27.3	11	2	AAR10931	Aar10931 Relaxin C
	15	3	27.3	11	2	AAR12375	Aar12375 Human Fac
	16	3	27.3	11	2	AAR22743	Aar22743 Non-A, No
	L7	3	27.3	11	2	AAR31357	Aar31357 Antimicro
	L 7 L 8	3	27.3	11	2	AAR28089	Aar28089 Cell-to-c
	L9	3	27.3	11	2	AAR28088	Aar28088 Cell-to-c
	20	3	27.3	11	2	AAR28128	Aar28128 Cell-to-c
	21	3	27.3	11	2	AAR28130	Aar28130 Cell-to-c
	22	3	27.3	11	2	AAR28132	Aar28132 Cell-to-c
	23	3	27.3	11	2	AAR44843	Aar44843 Lactoferr
	24	3	27.3	11	2	AAR32352	Aar32352 Human Fac
	25	3	27.3	11	2	AAR37430	Aar37430 Promega p
	25 26	3	27.3	11	2	AAR34421	Aar34421 Hepatitis
	27	3	27.3	11	2	AAR57464	Aar57464 Lactoferr
			27.3	11	2	AAR66080	Aar66080 Phosphory
	28	3	27.3	11	2	AAR66072	Aar66072 Phosphory
	29	3	27.3	11	2	AAR66072 AAR66083	Aar66083 Phosphory
	30	3	27.3	11	2	AAR48537	Aar48537 Lactoferr
	31	3	27.3	$\frac{11}{11}$	2	AAR40337 AAR63547	Aar63547 HT-LCF pe
	32	3		11	2	AAR66534	Aar66534 Human inf
	33	3	27.3	11	2	AAR70606	Aar70606 HIV(B35)A
	34	3	27.3 27.3	11	2	AAR84701	Aar84701 Bovine la
	35	3		11	2	AAR80266	Aar80266 Anti-para
	36 37	3	27.3 27.3	11	2	AAR84537	Aar84537 Hepatitis
					2	AAR64537 AAR64598	Aar64598 RF-1 pept
	38	3	27.3	11 11	2	AAR87611	Aar87611 Lactoferr
	39	3	27.3	11	2	AAR91854	Aar91854 Lactoferr
	40	3 3	27.3 27.3	11	2	AAW12602	Aaw12602 SH2 bindi
	41		27.3	11	2	AAW12002 AAW05350	Aaw05350 Residues
	42	3 3	27.3	11	2	AAW05350 AAW05374	Aaw05374 Reverse D
	43	3	27.3	11	2	AAW03374 AAW03991	Aaw03974 Reverse b
	44		27.3	11	2	AAR96813	Aar96813 Human lam
	45 46	3 3	27.3	11	2	AAR96812	Aar96812 N.gonorrh
	46 47	3	27.3	11	2	AAR96834	Aar96834 N.gonorrh
		3		11	2	AAR81803	Aar81803 E-Dex int
	48		27.3	11	2	AAR90709	Aar90709 Residues
	49	3 3	27.3 27.3	11	2	AAW02115	Aaw02115 Biotinyla
	50 51	3	27.3	11	2	AAW02113 AAW09653	Aaw09653 Labelled
	52	3	27.3	11	2	AAW25587	Aaw25587 Synthetic
	53	3	27.3	11	2	AAW25586	Aaw25586 Synthetic
		3	27.3	11	2	AAW15675	Aaw15675 Platelet
	54 55	3	27.3	11	2	AAW22738	Aaw22738 Linking s
		3	27.3	11	2	AAW38140	Aaw38140 Linking s
	56 57	3	27.3	11		AAW39576	Aaw39576 Human Inf
	57				2		Aaw14038 Anti-para
	58 50	3	27.3	11	2 2	AAW14038	Aaw16616 Phosphoin
	59 60	3	27.3	11		AAW16616	Aaw10110 Hepatitis
	60 61	3	27.3	$\frac{11}{11}$	2	AAW10140	Aaw26152 Lactoferr
	61 62	3	27.3	11	2	AAW26152	Aaw70312 Thrombus
	62 63	3	27.3	11	2	AAW70312	
	63	3	27.3	11	2	AAW69270	Aaw69270 Haemagglu
	64	3	27.3	11	2	AAY20426	Aay20426 Human mic
	65	3	27.3	11	2	AAW78553	Aaw78553 SH2 domai
1	66	3	27.3	11	2	AAW78592	Aaw78592 SH2 domai

67	3	27.3	11	2	AAW41292	Aaw41292	Apoptosis
68	3	27.3	11	2	AAW61162	Aaw61162	IgE deriv
69	3	27.3	11	2	AAW53227	Aaw53227	Lactoferr
70	3	27.3	11	2	AAY30697	Aay30697	Apo-B100
71	3	27.3	11	2	AAY33387	Aay33387	Zinc fing
72	3	27.3	11	2	AAY03092	Aay03092	New nocic
73	3	27.3	11	2	AAY47022	Aay47022	Immunogen
74	3	27.3	11	2	AAY07983	Aay07983	Human sec
75	3	27.3	11	2	AAW67680	Aaw67680	LXXLL sig
76	3	27.3	11	2	AAW74077	Aaw74077	Fragment
77	3	27.3	11	2	AAW74135	Aaw74135	GI transp
78	3	27.3	11	2	AAW97473	Aaw97473	Antigenic
79	3	27.3	11	2	AAW97472	Aaw97472	Antigenic
80	3	27.3	11	2	AAW97476	Aaw97476	Antigenic
81	3	27.3	11	2	AAW97477	Aaw97477	Antigenic
82	3	27.3	11	2	AAW97474	Aaw97474	Antigenic
83	3	27.3	11	2	AAW97475	Aaw97475	Antigenic
84	3	27.3	11	2	AAY01172	Aay01172	Polypepti
85	3	27.3	11	2	AAW92727		Human tac
86	3	27.3	11	2	AAY55306		CD34 anti
87	3	27.3	11	2	AAY31014	Aay31014	Non-cross
88	3	27.3	11	3	AAY89315		Core poly
89	3	27.3	11	3	AAY88562		NCAM Igl
90	3	27.3	11	3	AAY88550		NCAM Igl
91	3	27.3	11	3	AAY65723		Breast ca
92	3	27.3	11	3	AAY56541		Peptide S
93	3	27.3	11	3	AAY93125		Transform
94	3	27.3	11	3	AAY93544	-	Amino aci
95	3	27.3	11	3	AAY87052		Human hae
96	3	27.3	11	3	AAY59212	-	Rhamnogal
97	3	27.3	11	3	AAY81393	_	PKC-alpha
98	3	27.3	11	3	AAY54478	_	Peptide u
99	3	27.3	11	3	AAY86592	-	Telomeras
100	3	27.3	11	3	AAB29416	Aab29416	Synthetic

ALIGNMENTS

```
RESULT 1
AAY88542
     AAY88542 standard; peptide; 11 AA.
ID
XX
AC
     AAY88542;
XX
     07-AUG-2000 (first entry)
DT
XX
DE
     NCAM Ig1 binding peptide #14.
XX
     NCAM; neural cell adhesion molecule; Igl; immunoglobulin domain 1;
KW
     neurite outgrowth promoter; proliferation; nerve damage; sclerosis;
KW
     impaired myelination; stroke; Parkinson's disease; memory; schizophrenia;
KW
     Alzheimer's disease; diabetes mellitus; circadian clock; nephrosis;
KW
     treatment; prosthetic nerve guide; treatment; nervous system.
KW
XX
os
     Synthetic.
XX
```

```
WO200018801-A2.
PN
XX
     06-APR-2000.
PD
XX
PF
     23-SEP-1999;
                    99WO-DK000500.
XX
     29-SEP-1998;
                    98DK-00001232.
PR
                    99DK-00000592.
PR
     29-APR-1999;
XX
     (RONN/) RONN L C B.
PΑ
     (BOCK/) BOCK E.
PA
PΑ
     (HOLM/) HOLM A.
PΑ
     (OLSE/) OLSEN M.
     (OSTE/) OSTERGAARD S.
PΑ
     (JENS/) JENSEN P H.
PΑ
     (POUL/) POULSEN F M.
PΑ
     (SORO/) SOROKA V.
PΑ
     (RALE/) RALETS I.
PΑ
     (BERE/) BEREZIN V.
PA
XX
     Ronn LCB, Bock E, Holm A, Olsen M, Ostergaard S, Jensen PH;
PΙ
     Poulsen FM, Soroka V, Ralets I, Berezin V;
PI
XX
     WPI; 2000-293111/25.
DR
XX
```

Compositions that bind neural cell adhesion molecules useful for treating disorders of the nervous system and muscles e.g. Alzheimer's and Parkinson's diseases.

Example 4; Page 25; 119pp; English.

PT

PT

PT XX

PS XX

CC

CC XX Neural cell adhesion molecule (NCAM) is a cellular adhesion molecule. NCAM is found in three forms, two of which are transmembrane forms, while the third is attached via a lipid anchor to the cell membrane. All three NCAM forms have an extracellular structure consisting five immunoglobulin domains (Ig domains). The Ig domains are numbered 1 to 5 from the Nterminal. The present sequence represents a peptide which binds to the NCAM Iql domain. The peptide can be used in a compound which binds to NCAM-Iq1/Iq2 domains, and is capable of stimulating or promoting neurite outgrowth from NCAM presenting cells, and is also capable of promoting the proliferation of NCAM presenting cells. The compound may be used in the treatment of normal, degenerated or damaged NCAM presenting cells. The compound may in particular be used to treat diseases of the central and peripheral nervous systems such as post operative nerve damage, traumatic nerve damage, impaired myelination of nerve fibres, conditions resulting from a stroke, Parkinson's disease, Alzheimer's disease, dementias, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission and schizophrenia. Conditions affecting the muscles may also be treated with the compound, such as conditions associated with impaired function of neuromuscular connections (e.g. genetic or traumatic shock or traumatic atrophic muscle disorders). Conditions of the gonads, pancreas (e.g. diabetes mellitus types I and II), kidney (e.g. nephrosis), heart, liver and bowel may also be treated using the compound. The compound is used in a prosthetic nerve guide, and also to stimulate the ability to learn, and to stimulate the memory of a subject

```
SQ
     Sequence 11 AA;
                          100.0%; Score 11; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.6e-05;
  Best Local Similarity
                                0; Mismatches
                                                                              0;
                                                  0; Indels
                                                                  0; Gaps
           11; Conservative
            1 ARKTRERKSKD 11
Qу
              1 ARKTRERKSKD 11
Db
RESULT 2
ABG69342
     ABG69342 standard; peptide; 11 AA.
ID
XX
AC
     ABG69342;
XX
DT
     21-OCT-2002 (first entry)
XX
     Human neural cell adhesion molecule (NCAM) peptide #14.
DE
XX
     Human; neural cell adhesion molecule; NCAM; heart muscle cell survival;
KW
     acute myocardial infarction; central nervous system disorder; stroke;
KW
     peripheral nervous system disorder; postoperative nerve damage;
KW
     traumatic nerve damage; spinal cord injury; nerve fibre; schizophrenia;
KW
     postischaemic damage; multiinfarct dementia; multiple sclerosis;
KW
     nerve degeneration; diabetes mellitus; neuro-muscular degeneration;
KW
     Alzheimer's disease; Parkinson's disease;
KW
     Huntington's disease. atrophic muscle disorder; gonad degeneration;
KW
KW
     nephrosis.
XX
OS
     Homo sapiens.
XX
PN
     WO200247719-A2.
XX
PD
     20-JUN-2002.
XX
PF
     12-DEC-2001; 2001WO-DK000822.
XX
     12-DEC-2000; 2000DK-00001863.
PR
XX
PΑ
     (ENKA-) ENKAM PHARM AS.
XX
_{\mathrm{PI}}
     Bock E, Berezin V, Kohler LB;
XX
DR
     WPI; 2002-583473/62.
XX
     Use of a compound comprising a peptide of neural cell adhesion molecule,
PT
     in the preparation of medicament for preventing death of cells presenting
PT
     NCAM or NCAM ligand and treating central nervous system diseases.
PT
XX
     Disclosure; Page 16; 57pp; English.
PS
XX
CC
     The invention relates to use of a compound (I) comprising a peptide which
     comprises at least 5 contiguous amino acid residues of a sequence of the
CC
```

neural cell adhesion molecule (NCAM), its fragment, variant or its mimic,

for the preparation of a medicament for preventing death of cells

CC CC

```
of a medicament for preventing death of cells presenting the NCAM or an
CC
     NCAM ligand. The medicament is for the stimulation of the survival of
CC
    heart muscle cells, such as survival after acute myocardial infarction.
CC
     The medicament is for the treatment of diseases or conditions of the
CC
     central and peripheral nervous system, such as postoperative nerve
CC
     damage, traumatic nerve damage, e.g. resulting from spinal cord injury,
CC
CC
     impaired myelination of nerve fibres, postischaemic damage, e.g.
CC
     resulting from a stroke, multiinfarct dementia, multiple sclerosis, nerve
CC
     degeneration associated with diabetes mellitus, neuro-muscular
     degeneration, schizophrenia, Alzheimer's disease, Parkinson's disease and
CC
     Huntington's disease. The medicament is for the treatment of diseases or
CC
CC
     conditions of the muscles including conditions with impaired function of
     neuro-muscular connections, such as genetic or traumatic atrophic muscle
CC
     disorders, and for the treatment of diseases of conditions of various
CC
     organs, such as degenerative conditions of the gonads, pancreas (e.g.
CC
     diabetes mellitus type I and II) and kidney (e.g. nephrosis). ABG69329-
CC
     ABG69352 represent human NCAM peptides of the invention
CC
XX
SQ
    Sequence 11 AA;
                          100.0%;
                                   Score 11; DB 5; Length 11;
 Query Match
                          100.0%; Pred. No. 1.6e-05;
 Best Local Similarity
                                                                             0;
                                0; Mismatches
                                                  0;
                                                       Indels
                                                                 0;
                                                                     Gaps
 Matches
          11; Conservative
            1 ARKTRERKSKD 11
QУ
              1 ARKTRERKSKD 11
Db
RESULT 3
AAW40399
     AAW40399 standard; protein; 11 AA.
XX
AC
    AAW40399;
XX
DT
     17-OCT-2003
                  (revised)
DT
     23-JUL-1998
                 (first entry)
XX
    NNOS binding peptide #1.
DE
XX
    Nitric oxide synthase; endothelial; ENOS; INOS; inducible; NNOS;
KW
     neuronal; calmodulin; brain damage; shock; autoimmune disease;
KW
KW
     inflammatory condition; multiple sclerosis; diabetes; dementia;
KW
     dysplasia; cancer; infectious disease; cytotoxic; hypertension;
KW
     atherosclerosis; asthma; detection; screening.
XX
OS
     unidentified.
XX
PN
     WO9802555-A1.
XX
PD
    22-JAN-1998.
XX
PF
     10-JUL-1997;
                    97WO-US012568.
XX
PR
    12-JUL-1996;
                    96US-00679006.
XX
```

presenting the NCAM or an NCAM ligand. (I) is useful in the preparation

```
(SALE/) SALERNO J C.
PA
XX
PΙ
     Salerno JC;
XX
DR
     WPI; 1998-110601/10.
XX
     New modulators of nitric oxide synthase - used for treating e.g. toxic
PT
     shock, auto-immune disease, inflammatory disease, diabetes, hypertension,
PT
     infections or cancer.
PT
XX
     Claim 14; Page 41; 78pp; English.
PS
XX
     This sequence represents a peptide which binds adjacent to the calmodulin
CC
    binding site of neuronal nitric oxide synthase (NNOS). This peptide is
CC
     used in a novel method which identifies an agent which inhibits nitric
CC
     oxide synthase (NOS) by blocking calmodulin (CAM) activation of the NOS.
CC
     Such agents which modulate NOS activity can be used to treat a disease or
CC
     condition associated with nitric oxide production. Agents which inhibit
CC
     neuronal NOS (NNOS) can be used to prevent brain damage in conditions
CC
     involving cerebral ischaemia or reperfusion injury, such as head trauma.
CC
     Agents which decrease the activity of inducible NOS (INOS) can be used to
CC
     treat a condition modulated by production of NO by INOS, such as septic
CC
     shock, toxic shock, autoimmune disease such as rheumatoid arthritis,
CC
     inflammatory conditions such as inflammatory bowel disease, multiple
CC
     sclerosis, diabetes, or to combat dementia, immune system destruction,
CC
     and/or physical deterioration in individuals infected with the AIDS
CC
     virus. Agents which activate INOS can be used to treat disease relating
CC
     to dysplasia, cancer, or infectious disease. Activation of INOS can
CC
     produce cytotoxic levels of NO which would aid in the elimination of
CC
     dysplastic or cancerous tissue, or aid in the control of infectious
CC
     agents such as viruses, microbes, or other parasites. Agents which
CC
     increase the activity of endothelial NOS (ENOS) can be used to treat a
CC
CC
     condition modulated by production of NO by ENOS such as hypertension,
     atherosclerosis or acute asthma. An agent which activates ENOS or NNOS in
CC
CC
     the corpus cavernosa can be used for treating male erectile dysfunction.
CC
     The products and methods can also be used for detection and drug
CC
     screening. (Updated on 17-OCT-2003 to standardise OS field)
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 2; Length 11;
                          100.0%; Pred. No. 7.1e+02;
  Best Local Similarity
                              0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             4; Conservative
            6 ERKS 9
Qу
              \perp
            3 ERKS 6
Db
RESULT 4
     ABB74475 standard; peptide; 11 AA.
XX
АC
     ABB74475;
XX
DT
     18-APR-2002 (first entry)
XX
```

DE DNA repair protein nuclear localisation signal peptide SEQ ID NO:239.

XX

KW Fusogenic; nuclear localisation signal; NLS; encapsulation; lipogene;

KW liposome; micelle; karyophilic; cytostatic; antitumour; solid tumour;

peptide-lipid-polynucleotide complex; neoplastic disease; gene therapy;

KW breast carcinoma; prostate carcinoma.
XX

OS Eukaryota.

KW

XX

XX

XX

PF XX

PR XX

PA XX

XX

XX

PT

PT PT

XX

PS XX

CC

CC CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

XX

SQ

PN W0200193836-A2.

PD 13-DEC-2001.

08-JUN-2001; 2001WO-US018657.

09-JUN-2000; 2000US-0210925P.

(BOUL/) BOULIKAS T.

PI Boulikas T;

DR WPI; 2002-164295/21.

Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic peptide conjugates into targeted liposome complexes.

Claim 14; Page 69; 107pp; English.

The present invention describes a method for producing micelles with entrapped therapeutic agents. The method comprises: (1) combining negatively charged agent with a cationic lipid in a ratio where 30-90 % of the negatively charged atoms are neutralised by positive charges on lipid molecules to form an electrostatic micelle complex in 20-80 % ethanol; and (2) combining the micelle complex of (a) with fusogenickaryophilic peptide conjugates in a 0.0-0.3 ratio, therefore producing micelles with entrapped therapeutic agents. Also described is a method for delivering a therapeutic agent in vivo, comprising the administration of the micelle. ABB74256 to ABB74858 represent specifically claimed nuclear localisation signal (NLS) peptides for use in the method as the fusogenic-karyophilic peptides. The micelles produced can have cytostatic and antitumour activities. The peptide-lipid-polynucleotide complexes produced are useful for inhibiting the progression of neoplastic diseases. The invention relates to the field of gene therapy and is directed toward methods for producing peptide-lipid-polynucleotide complexes suitable for delivery of polynucleotides. The encapsulated molecules display therapeutic efficacy in eradicating solid tumours including but not limited to breast carcinoma or prostate carcinoma. ABB74235 to ABB74255 are used in the exemplification of the present invention

Sequence 11 AA;

```
Query Match 36.4%; Score 4; DB 5; Length 11;
Best Local Similarity 100.0%; Pred. No. 7.1e+02;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps
```

0;

```
5 RERK 8
Qу
               1111
             8 RERK 11
Db
```

RESULT 5 AAU96240 AAU96240 standard; peptide; 11 AA. ID XX AAU96240; AC XX DT15-JUL-2002 (first entry) XX Class I G protein-coupled receptor #2. DE XXClass I G protein-coupled; receptor; mu opioid receptor; KW altered signalling; basal activity; silencing mutation. KW XXOS Synthetic. XX WO200227015-A2. PNXX 04-APR-2002. PD XX PF28-SEP-2001; 2001WO-US042416. XX 28-SEP-2000; 2000US-0236302P. PR 03-MAY-2001; 2001US-0288644P. PR XX (NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC. PAXX Kopin AS, Beinborn M; PIXX DR

WPI; 2002-330100/36.

XX PT

PTPT Identifying polymorphic receptors having altered signaling, useful for e.g. detecting receptors with alterations in their basal activity, such as constitutively active receptors or receptors having silencing mutations.

PTXX PS

Example 1; Fig 1; 71pp; English.

XX CC CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

CC

The invention relates to a method of identifying a polymorphic receptor (e.g. a G-protein coupled receptor) having altered signalling, comprising co-transfecting a host cell with a reporter construct and an expression vector, in which the reporter construct comprises a response element and a promoter operably linked to a reporter gene. The response element is sensitive to a signal induced by the receptor and the expression vector comprises a promoter operably linked to a candidate receptor containing a genetic polymorphism. A second host cell is co-transfected with the reporter construct and a negative control vector and the expression level of the reporter construct in the host cells is measured. An increased or decreased level of expression in the first host cell compared to the second, identifies the candidate receptor as a polymorphic receptor with altered signalling. The method is used for the identification of receptors with alterations in their basal activity, for example,

CCCC

constitutively active receptors or receptors having silencing mutations.

```
Other uses include the identification of polymorphic or mutant receptors
CC
     having alterations in signalling and receptors having altered drug
CC
     responses. The receptors identified are useful as tools for drug
CC
     discovery. Sequences AAU96239-AAU96313 represent Class I G protein-
CC
     coupled receptors, used in the identification of a constitutively active
CC
     rat mu opioid receptor
CC
XX
     Sequence 11 AA;
SQ
                          36.4%; Score 4; DB 5; Length 11;
  Query Match
                          100.0%; Pred. No. 7.1e+02;
  Best Local Similarity
  Matches
                                                                              0;
           4; Conservative
                              0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            5 RERK 8
Qу
              | | | | |
            1 RERK 4
Db
RESULT 6
AAE34290
     AAE34290 standard; peptide; 11 AA.
XX
AC
    AAE34290;
XX
DΤ
     02-MAY-2003 (first entry)
XX
     Human 5-hydroxytryptamine 1B receptor mutant peptide.
DE
XX
     Human; signalling; receptor; G protein-coupled receptor; GPCR; therapy;
KW
KW
     5-hydroxytryptamine; mutein; mutant.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Misc-difference 6
FT
                     /note= "Wild type Thr substituted with Xaa; where Xaa =
FT
                     Lys, Arq, Gln"
XX
     WO200290926-A2.
PN
XX
PD
     14-NOV-2002.
XX
     03-MAY-2002; 2002WO-US014227.
PF
XX
     03-MAY-2001; 2001US-0288647P.
PR
XX
     (NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.
PA
XX
PΙ
     Kopin AS, Beinborn M;
XX
     WPI; 2003-120567/11.
DR
XX
PT
     Identifying receptor, e.g., G protein-coupled receptor, having
     alterations in ligand dependent or independent signaling comprises
PT
     comparison of dose-response curves for expression of a reporter
PT
PΤ
     construct.
```

```
PS
     Disclosure; Page; 61pp; English.
XX
     The invention relates to a method of identifying receptor with altered
CC
     signalling. The method involves co-transfecting a cell with expression
CC
     vector having promoter linked to receptor and reporter construct having
CC
     response element and promoter linked to reporter gene, co-transfecting
CC
CC
     another cell with reporter construct and negative control vector, and
CC
     measuring level of reporter construct at varying concentrations of
CC
     construct/vectors to give dose-response curves. The method is useful for
     identifying a receptor that is a mutant receptor or polymorphic receptor
CC
     with altered signalling. The method is especially useful for identifying
CC
CC
     a G protein-coupled receptor (GPCR) with altered signalling where the
     GPCR is selected from a constitutively active receptor, hypersensitive
CC
     receptor, hyposensitive receptor, non-functional receptor, silent
CC
     receptor or partially silent receptor. Receptor with altered signalling
CC
     is useful in drug screening assays to identify ligands for treating a
CC
     disease or disorder. The present sequence is human 5-hydroxytryptamine 1B
CC
     receptor mutant peptide used in the invention. Note: This sequence is not
CC
     shown in the specification but is derived from the human 5-
CC
СC
     hydroxytryptamine 1B receptor wild-type peptide shown in figure 9 of the
CC
     specification (AAE34216)
XX
SO
     Sequence 11 AA;
                          36.4%; Score 4; DB 6; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 7.1e+02;
                              0; Mismatches
                                                                 0; Gaps
                                                                              0;
  Matches
             4; Conservative
                                                   0; Indels
            5 RERK 8
Qу
              1111
            1 RERK 4
Db
RESULT 7
AAE34216
     AAE34216 standard; peptide; 11 AA.
XX
AC
    AAE34216;
XX
DT
     02-MAY-2003 (first entry)
XX
     Human 5-hydroxytryptamine 1B receptor peptide.
DE
XX
     Human; signalling; receptor; G protein-coupled receptor; GPCR; therapy;
KW
KW
     5-hydroxytryptamine receptor.
XX
OS
     Homo sapiens.
XX
PN
     W0200290926-A2.
XX
     14-NOV-2002.
PD
XX
PF
     03-MAY-2002; 2002WO-US014227.
XX
PR
     03-MAY-2001; 2001US-0288647P.
XX
```

```
(NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.
PΑ
XX
     Kopin AS, Beinborn M;
ΡI
XX
DR
    WPI; 2003-120567/11.
XX
     Identifying receptor, e.g., G protein-coupled receptor, having
PT
     alterations in liqund dependent or independent signaling comprises
PT
PT
     comparison of dose-response curves for expression of a reporter
PT
     construct.
XX
     Disclosure; Fig 9; 61pp; English.
PS
XX
DD,
     The invention relates to a method of identifying receptor with altered
CC
     signalling. The method involves co-transfecting a cell with expression
     vector having promoter linked to receptor and reporter construct having
CC
CC
     response element and promoter linked to reporter gene, co-transfecting
CC
     another cell with reporter construct and negative control vector, and
    measuring level of reporter construct at varying concentrations of
CC
     construct/vectors to give dose-response curves. The method is useful for
CC
CC
     identifying a receptor that is a mutant receptor or polymorphic receptor
     with altered signalling. The method is especially useful for identifying
CC
     a G protein-coupled receptor (GPCR) with altered signalling where the
CC
     GPCR is selected from a constitutively active receptor, hypersensitive
CC
     receptor, hyposensitive receptor, non-functional receptor, silent
CC
     receptor or partially silent receptor. Receptor with altered signalling
CC
     is useful in drug screening assays to identify ligands for treating a
CC
     disease or disorder. The present sequence is human 5-hydroxytryptamine 1B
CC
CC
     receptor peptide used in the invention
XX
SQ
     Sequence 11 AA;
  Query Match
                          36.4%; Score 4; DB 6; Length 11;
  Best Local Similarity
                         100.0%; Pred. No. 7.1e+02;
 Matches
          4; Conservative
                              0; Mismatches
                                                  0; Indels 0; Gaps
                                                                             0;
            5 RERK 8
Qy
              \Box
Db
            1 RERK 4
RESULT 8
AAP40439
     AAP40439 standard; peptide; 11 AA.
XX
AC
     AAP40439;
XX
DT
     25-MAR-2003 (revised)
DT
     03-OCT-2002
                  (revised)
DT
     14-FEB-1992 (first entry)
XX
DE
     Sequence of peptide with immunomodulating activity.
XX
KW
     Immunopotentiator; antimicrobial; antiviral; immunomodulator.
XX
OS
     Synthetic.
XX
```

```
EP103858-A.
PN
XX
     28-MAR-1984.
PD
XX
PF
     16-SEP-1983;
                    83EP-00109147.
XX
PR
     17-SEP-1982;
                    82JP-00162873.
     25-NOV-1982;
                    82JP-00207335.
PR
XX
     (FUJI ) FUJISAWA PHARM CO LTD.
PΑ
XX
PΙ
     Hashimoto M,
                   Hemmi K;
XX
DR
     WPI; 1984-083584/14.
XX
     Penta- to tri-deca:peptide(s) - useful as strong immuno-potentiators esp.
PT
     against microbes and viruses.
PT
XX
     Claim 1; Page 82; 87pp; English.
PS
XX
     The first AA of each claimed peptide is bonded to H and the final AA is
CC
     bonded to OH. The peptides are useful as antimicrobial and antiviral
CC
     agents. Dose is 0.1-1000 mg/kg. daily. (Updated on 03-OCT-2002 to add
CC
     missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                    0: Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            8 KSK 10
Qу
              111
Db
            1 KSK 3
RESULT 9
     AAP40131 standard; protein; 11 AA.
XX
AC
     AAP40131;
XX
DT
     03-OCT-2002 (revised)
DT
     12-FEB-1992 (first entry)
XX
     Clones pJDB207/IF2(51) delta 72 at junction (Xho linker) between the
DE
     3'UTR of IFN-51 and the PHO5 transcription termination region.
DE
XX
ΚW
     Yeast expression vector; promoter.
XX
OS
     Homo sapiens.
XX
FH
     Key
                     Location/Qualifiers
FT
     Protein
                     1. .11
FT
                     /label= IFN-51
XX
PN
     EP100561-A.
```

```
XX
PD
     15-FEB-1984.
XX
                    83EP-00107804.
     08-AUG-1983;
PF
XX
                    82GB-00022883.
PR
     09-AUG-1982;
     31-DEC-1982;
                    82GB-00037026.
PR
     02-JUN-1983;
                    83GB-00015145.
PR
     14-JUL-1983;
                    83GB-00019099.
PR
XX
     (CIBA ) CIBA GEIGY AG.
PA
XX
     Hinnen A, Meyhack B, Meyer F;
PI
XX
     WPI; 1984-044243/08.
DR
     N-PSDB; AAN40115.
DR
XX
     Acid phosphatase promoting DNA fragment - for expressing peptide(s) in
PT
     yeasts which are more easily cultured than e.coli.
PT
XX
     Example; Fig 28a; 166pp; English.
PS
XX
     The inventors claim: (A) DNA fragment consisting of yeast acid
CC
     phosphatase promoter and flanking sequences or its mutants which retain
CC
     the promoter function. (B) Hybrid vector consisting of a yeast acid
CC
     phosphatase promoter and a yeast or non-yeast polypeptide coding region
CC
     controlled by the promoter. (C) A yeast transformed by the vector. (D)
CC
     Prodn. of a yeast or non-yeast polypeptide or its deriv. by culturing the
CC
     transformed yeast. The polypeptides are hormones, antiviral and
CC
     anticancer peptides, enzymes and interferon. (Updated on 03-OCT-2002 to
CC
CC
     add missing OS field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
                                                                              0;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
            8 KSK 10
Qу
              | | |
            8 KSK 10
Db
RESULT 10
AAP40132
     AAP40132 standard; protein; 11 AA.
XX
AC
     AAP40132;
XX
DT
     03-OCT-2002
                  (revised)
DT
     12-FEB-1992
                  (first entry)
XX
     Clones pJDB207/IF2(51) delta 82 at the junction (Xho linker) between the
DE
DE
     3'UTR of IFN-51 and the PHO5 transcription termination region.
XX
KW
     Yeast expression vector; promoter.
XX
```

```
Homo sapiens.
OS
XX
                     Location/Qualifiers
FH
    Key
                     1. .11
FT
     Protein
                     /label= IFN-51
FT
XX
     EP100561-A.
PN
XX
     15-FEB-1984.
PD
XX
                    83EP-00107804.
PF
     08-AUG-1983;
XX
     09-AUG-1982;
                    82GB-00022883.
PR
                    82GB-00037026.
     31-DEC-1982;
PR
                    83GB-00015145.
     02-JUN-1983;
PR
                    83GB-00019099.
PR
     14-JUL-1983;
XX
     (CIBA ) CIBA GEIGY AG.
PΑ
XX
    Hinnen A, Meyhack B, Meyer F;
ΡI
XX
    WPI; 1984-044243/08.
DR
    N-PSDB; AAN40116.
DR
XX
     Acid phosphatase promoting DNA fragment - for expressing peptide(s) in
PT
     yeasts which are more easily cultured than e.coli.
PТ
XX
PS
     Example; Fig 28b; 166pp; English.
XX
     The inventors claim: (A) DNA fragment consisting of yeast acid
CC
CC
     phosphatase promoter and flanking sequences or its mutants which retain
CC
     the promoter function. (B) Hybrid vector consisting of a yeast acid
     phosphatase promoter and a yeast or non-yeast polypeptide coding region
CC
     controlled by the promoter. (C) A yeast transformed by the vector. (D)
CC
CC
     Prodn. of a yeast or non-yeast polypeptide or its deriv. by culturing the
CC
     transformed yeast. The polypeptides are hormones, antiviral and
     anticancer peptides, enzymes and interferon. (Updated on 03-OCT-2002 to
CC
CC
     add missing OS field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
          3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
Qу
            8 KSK 10
              \mathbf{I}
            8 KSK 10
Db
RESULT 11
AAP60142
     AAP60142 standard; peptide; 11 AA.
XX
AC
    AAP60142;
XX
DT
     25-MAR-2003 (revised)
```

```
DT
     31-OCT-2002
                  (revised)
     07-JUL-1991
                 (first entry)
DΤ
XX
    Type 3 pentapeptide linked to VP3 peptide suitable for use in a vaccine
DE
     against a disease caused by type 3 poliovirus.
DE
XX
    Vaccine; diagnosis; enterovirus disease; poliovirus type 1; type 2;
KW
KW
    type 3.
XX
OS
    Synthetic.
XX
                     Location/Qualifiers
FH
     Key
                     1. .5
FT
     Region
                     /label= type 3 pentapeptide
FT
FT
    Misc-difference 1
                     /label= R,K
FT
                     /note= "pref. R"
FT
FT
    Misc-difference 2
                     /label= N,Q,D,E
FT
                     /note= "pref. N"
FT
    Misc-difference 3
FT
FT
                     /label= see above
FT
    Misc-difference 5
FT
                     /label= D,E
                     /note= "pref. D"
FT
FT
     Region
                     6. .11
                     /label= VP3 peptide
FT
XX
PN
     EP197772-A.
XX
     15-OCT-1986.
PD
XX
PF
     03-APR-1986;
                    86EP-00302481.
XX
PR
     03-APR-1985;
                    85GB-00008685.
PR
     03-APR-1986;
                    86GB-00008140.
XX
PA
     (NATR ) NAT RES DEV CORP.
     (BRTE-) BRITISH TECHNOLOGY GROUP LTD.
PA
XX
                                                     Ferguson M;
PI
    Minor PD,
                Evans DMA, Schild GC, Almond JW,
XX
    WPI; 1986-273645/42.
DR
XX
     Synthetic peptide for vaccination or diagnosis of enter-virus disease -
PT
     comprises fragment coded for by polio virus type 3 Sabin strain capsid
PT
PT
     protein RNA.
XX
PS
     Disclosure; Page 15; 53pp; English.
XX
     The inventors claim synthetic peptides for use in vaccination against or
CC
     diagnosis of a disease caused by an enterovirus (see AAN60118). The
CC
     peptides are coded for by codons 286-288 or 286-290 in the RNA sequence
CC
CC
     coding for the structural capsid protein VP1 of poliovirus type 3 Sabin
     strain or by equivalent codons of another enterovirus, or antigenic
CC
     equivs. Also claimed are synthetic peptides comprising the above peptides
CC
     linked to (a) a hexapeptide coded for by codons 93-98 as above, or (b) a
CC
```

```
protein of an enterovirus. Typical doses are 100mg-lmg, i.m. (Updated on
CC
     31-OCT-2002 to add missing OS field.) (Updated on 25-MAR-2003 to correct
CC
     PA field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
           3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            9 SKD 11
Qу
              111
            8 SKD 10
Db
RESULT 12
AAP91264
     AAP91264 standard; peptide; 11 AA.
ID
XX
     AAP91264;
AC
XX
DT
     25-MAR-2003 (revised)
DT
     20-DEC-1989
                 (first entry)
XX
     Tissue plasminogen activator mutant EGAV (V51R: N451Q).
DF.
XX
     Tissue plasminogen activator; mutant; fibrinolysis; EGAV (V51R: N451Q).
KW
XX
OS
     Homo sapiens.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                     7
XX
PN
     W08907146-A.
XX
PD
     10-AUG-1989.
XX
PF
     03-FEB-1989;
                    89WO-US000465.
XX
PR
     05-FEB-1988; 88US-00152692.
XX
     (INTE-) INTEG GENETICS INC.
PA
XX
PI
     Markland W, Livingston DJ;
XX
DR
     WPI; 1989-249015/34.
XX
     Rearranged tissue plasminogen activators - prepd. by altering the DNA
PT
     sequence to introduce Avr II, Nhe I, Spe I or Xba I cleavage sites.
PT
XX
PS
     Disclosure; Page 36; 77pp; English.
XX
     The peptide is encoded by AAN90545. The peptide has tPA activity, with
CC
CC
     extended in vivo half life. Spacing between tPA domains is increased, to
     increase rate of fibrinolysis or the resistance to inhibition by
CC
     endogenous tPA inhibitors present in human plasma. The peptide is used
CC
```

peptide sequence comprising AA residues 58 and 59 of the VP3 capsid

```
embolism, deep vein thrombosis and stroke. See also AAP91265-84. (Updated
CC
     on 25-MAR-2003 to correct PA field.)
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
             3; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RKS 9
Qу
              \perp
            7 RKS 9
Db
RESULT 13
AAR06754
     AAR06754 standard; protein; 11 AA.
XX
     AAR06754;
AC
XX
DT
     25-MAR-2003
                 (revised)
     23-OCT-1990
DT
                  (first entry)
XX
DE
     Tumour necrosis factor derived peptide.
XX
KW
     Tumour necrosis factor; TNF; neoplastic disease; autoimmune disease;
KW
     infection; inflammation; transplant rejection.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Misc-difference 5. .5
FT
                     /label= K, Q, R
XX
PN
     DE3841753-A.
XX
PD
     13-JUN-1990.
XX
PF
     12-DEC-1988;
                    88DE-03841753.
XX
PR
     12-DEC-1988;
                    88DE-03841753.
XX
PΑ
     (BADI ) BASF AG.
PA
     (BOEH/) BOEHM H J.
XX
PΙ
     Bohm HJ,
               Daum L, Schmied B, Walker N, Zechel JC, Haupt A;
XX
DR
     WPI; 1990-186573/25.
XX
     New tumour necrosis factor derived peptide(s) - for treating or
PT
     preventing neoplastic and auto-immune disease, infection, inflammation
PT
PT
     and transplant rejection.
XX
PS
     Example 67; Page 11; 15pp; German.
XX
CC
     To residue F1 is attached Ac and to residue A11 NH2. A3 and K9 form
```

for thrombolysis in the treatment of myocardial infarction, pulmonary

```
together a covalent bond. This peptide is an example of a highly generic
CC
     sequence of the formula X-A-G-D-Y. A= K,Q or R; X= G-NH-CHM-CO, G-NH-CHM-
CC
     CO-W, G-R-NH-CHM-CO or G-R-NH-CHM-CO-W; Y= Z, NH-CHQ-COZ, V-NH-CHQ-COZ,
CC
    NH-CHQ-CO-U-Z or V-NH-CHQ-CO-U-Z; G= H or an amino protecting group; Z=
CC
     OH, NH2 or carboxy protecting group; or G and Z together are a covalent
CC
    bond or the qp. CO(CH2)aNH; a=1-12; R,U,V and W= peptide chains of 1-4
CC
    naturally occuring alpha aminoacids; M and Q= H, isopropyl, CHMe.Et,
CC
    phenyl, CH(OH).Me, 3-indolyl- or 4-imidazoly-methyl or (CH2)bT; b=1-6; T=
CC
     OH, MeO, MeS, Me2CH, phenyl (opt. 4-OH, substd), HS, NH2, COOH, CONH2, NH
CC
    C (NH) NH2; or M ans Q together are (CH2)c-S-S-(CH2)d, (CH2)eCO NH-(CH2)f
CC
     or (CH2eNH CO(CH2)gNH CO(CH2) f; c and d=1-4; e and f=1-6; g=1-12. The
CC
    peptide is a low mol. wt. deriv. of TNF. See also DE3841753-55,
CC
     DE3841759, DE3841761-64, DE3841767-68. (Updated on 25-MAR-2003 to correct
CC
CC
     PA field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
                                                                  0; Gaps
                                                                              0;
             3; Conservative
                              0; Mismatches
                                                   0; Indels
            7 RKS 9
Qy
              1 I I
Db
            8 RKS 10
RESULT 14
AAR10931
     AAR10931 standard; peptide; 11 AA.
XX
AC
     AAR10931;
XX
DT
     07-MAY-1991 (first entry)
XX
DE
     Relaxin C peptide epitope IV.
XX
KW
     Monoclonal antibody; pregnancy; antigen; immunogen.
XX
OS
     Synthetic.
XX
PN
     WO9102251-A.
XX
PD
     21-FEB-1991.
XX
PF
     07-AUG-1989;
                    89US-00390626.
XX
PR
     07-AUG-1989;
                    89US-00390626.
XX
PΑ
     (ITCA-) INT CANINE GENETICS.
XX
PI
     Kuniyuki AH;
XX
DR
     WPI; 1991-073676/10.
XX
PT
     Detection of pregnancy in animals, esp. cats and dogs - by identifying
PT
     the presence of the C peptide of relaxin in body fluids.
XX
```

```
Claim 19; Page 38; 42pp; English.
PS
XX
     The peptide corresponds to residues 94-104 of rat relaxin C peptide. The
CC
     peptide was used as an immunogen to generate monoclonal anti-bodies for
CC
     use in detecting pregnancy. See also AAR10928-R10930
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
  Matches
            6 ERK 8
Qу
              \Box
            5 ERK 7
Db
RESULT 15
AAR12375
     AAR12375 standard; protein; 11 AA.
XX
AC
     AAR12375;
XX
DT
     25-MAR-2003
                  (revised)
     15-AUG-1991
                  (first entry)
DΤ
XX
     Human Factor VII (330-340) antihaemostatic peptide.
DE
XX
KW
     anti-coaqulant; thrombosis; Factor VII-tissue factor complex.
XX
OS
     Synthetic.
XX
PN
     WO9107432-A.
XX
PD
     30-MAY-1991.
XX
PF
     13-NOV-1989;
                    89US-00435657.
XX
PR
     13-NOV-1989;
                    89US-00435657.
XX
PA
     (TEXA ) UNIV TEXAS SYSTEM.
XX
PI
     Fair DS,
              Kumar A;
XX
DR
     WPI; 1991-178057/24.
XX
     New anti-haemostatic oligo peptide(s) - inhibit rate of extrinsic pathway
PT
     mediated activation-formation of Factor X or rate of thrombin formation.
PΤ
XX
PS
     Claim 21; Page 41; 62pp; English.
XX
     Compositions comprising this peptide or peptides having at least 95 per
CC
     cent homology to a sequence of 10-15 amino acids selected from it, are
CC
     useful for treatment of clotting or thrombotic disorders. The peptide is
CC
     disclosed as new and inhibits Factor Xa formation by about 40 per cent.
CC
     See also AAR12370-4, AAR12376-7 and AAR13010-R13011. (Updated on 25-MAR-
CC
CC
     2003 to correct PA field.)
```

```
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
 Matches
            9 SKD 11
Qy
              \perp
Db
            7 SKD 9
RESULT 16
AAR22743
     AAR22743 standard; protein; 11 AA.
ID
XX
AC
     AAR22743;
XX
DT
                 (revised)
     25-MAR-2003
     27-AUG-1992 (first entry)
DT
XX
     Non-A, Non-B hepatitis virus antibody binding peptide.
DE
XX
KW
    NANBH; immunoreactive; detection.
XX
OS
     Synthetic.
XX
     EP479376-A.
PN
XX
PD
     08-APR-1992.
XX
PF
     05-OCT-1990;
                    90EP-00202658.
XX
PR
     26-SEP-1991;
                    91EP-00202498.
XX
PΑ
     (ALKU ) AKZO NV.
XX
PΙ
     Habets WJA;
XX
DR
     WPI; 1992-116131/15.
XX
     New peptide(s) reactive with antibodies to hepatitis non-A, non-B, virus
PT
     - for detection of NANBH and its antibodies in body fluids.
PT
XX
     Example; Page 7; 9pp; English.
PS
XX
     The sequence is that of a peptide which is immunoreactive with antibodies
CC
     to hepatitis non-A, non-B (NANBH) virus, it was prepd. by stepwise solid
CC
     phase peptide synthesis. It can be used to detect NANBH antibodies in
CC
     test fluids. It has improved immunochemical reactivity, a high affinity
CC
     to NANBH antibodies and is of a safe, non-infectious origin. See also
CC
     AAR22727-R22744. (Updated on 25-MAR-2003 to correct PF field.)
CC
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
```

```
0; Indels
                                                                   0; Gaps
                                                                               0;
           3; Conservative 0; Mismatches
  Matches
            2 RKT 4
Qу
              \parallel \parallel \parallel \parallel
            2 RKT 4
RESULT 17
AAR31357
     AAR31357 standard; peptide; 11 AA.
ID
XX
AC
     AAR31357;
XX
DT
     25-MAR-2003 (revised)
DT
     20-MAY-1998 (first entry)
XX
     Antimicrobial peptide #11 derived from bovine lactoferrin.
DE
XX
     antimicrobial agent; iron-binding protein; athlete's foot; mastitis;
KW
KW
     antibacterial agent.
XX
OS
     Synthetic.
XX
PN
     EP503939-A1.
XX
PD
     16-SEP-1992.
XX
                    92EP-00302125.
     12-MAR-1992;
PF
XX
                    91JP-00048196.
PR
     13-MAR-1991;
     24-APR-1991;
                    91JP-00094492.
PR
                    91JP-00094493.
PR
     24-APR-1991;
XX
PΑ
     (MORG ) MORINAGA MILK IND CO LTD.
XX
PI
     Tomita M, Kawase K, Takase M, Bellamy WR, Yamauchi K;
PΙ
     Wakabayashi H, Tokita Y;
XX
DR
     WPI; 1992-310006/38.
XX
     New antimicrobial peptide(s) - active against e.g. Listeria
PT
     monocytogenes, Staphylococcus aureus, Pseudomonas aeruginosa and
PT
     Klebsiella pneumoniae, for treating e.g. diarrhoea, mastitis, etc.
PT
XX
PS
     Claim 8; Page 17; 19pp; English.
XX
     This synthetic peptide has a sequence derived from bovine lactoferrin.
CC
     The peptide has stronger antimicrobial activity than unhydrolysed
CC
     lactoferrin and improved heat resistance. The peptide had a minimum
CC
     inhibitory concentration (microM) of 1.5, 3, 6 and 25 against Listeria
CC
     monocytogenes, Staphylococcus aureus, Pseudomonas aeruginosa and
CC
     Klebsiella pneumoniae, respectively. This and other peptides derived from
CC
     hydrolysed lactoferrin can be incorporated into foods, human or
CC
     veterinary compositions (e.g. for treating mastitis and athlete's foot),
CC
     toiletries, cosmetics, cleaning agents, etc. See AAR31350-R31361.
CC
     (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
```

```
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
 Query Match
                         100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            3 KTR 5
Qу
              +11
            1 KTR 3
Db
RESULT 18
AAR28089
    AAR28089 standard; protein; 11 AA.
ID
XX
AC
    AAR28089;
XX
     25-MAR-2003 (revised)
DT
    27-NOV-1992 (first entry)
DT
XX
    Cell-to-cell binding inhibiting peptide subunit (14).
DE
XX
    Adhesion; integrin; multimer.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FΗ
     Key
                     5. .11
FT
     Cross-links
                     /note= "sequence linked by interchain amide bond at Glu
FT
                     position to Lys residue on Arg4-Lys-Arg-Ser-Arg-Gly-Asp-
FT
                     Val sequence (see AAR28090)"
FT
XX
PN
    WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
                    90US-00610363.
PR
     07-NOV-1990;
XX
PA
     (SCRI ) SCRIPPS RES INST.
XX
PI
     Ruggeri ZM, Houghten RA;
XX
DR
     WPI; 1992-199940/24.
XX
     Peptides inhibiting binding of adhesion mols. to cells expressing
PT
     integrins - for treating and preventing thrombus formation and diseases
PT
PT
     associated with platelet aggregation.
XX
PS
     Disclosure; Page 39-40; 70pp; English.
XX
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
     integrins comprises two subunits having the sequences given in AAR28089-
CC
     90, held together by an interchain stable bond. The sequence RGD is in
CC
```

each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)

CC XX

```
27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                               0;
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            5 RER 7
Qу
              IIII
            4 RER 6
Db
RESULT 19
AAR28088
     AAR28088 standard; protein; 11 AA.
ID
XX
AC
     AAR28088;
XX
                  (revised)
DT
     25-MAR-2003
     27-NOV-1992
DT
                  (first entry)
XX
     Cell-to-cell binding inhibiting peptide subunit (13).
DE
XX
     Adhesion; integrin; multimer.
ΚW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
     Cross-links
                     6. .11
FT
                     /note= "sequence linked by interchain amide bond at Lys
FT
                     position to Glu residue on Arq5-Glu-Ser-Arq-Gly-Asp-Val
FT
                     sequence (see AAR28087)"
FT
XX
ΡN
     WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
PR
     07-NOV-1990;
                    90US-00610363.
XX
PΑ
     (SCRI ) SCRIPPS RES INST.
XX
PΙ
     Ruggeri ZM,
                 Houghten RA;
XX
DR
     WPI; 1992-199940/24.
XX
     Peptides inhibiting binding of adhesion mols. to cells expressing
PT
PT
     integrins - for treating and preventing thrombus formation and diseases
PT
     associated with platelet aggregation.
XX
     Disclosure; Page 37-38; 70pp; English.
PS
XX
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
CC
     integrins comprises two subunits having the sequences given in AAR28087-
     88, held together by an interchain stable bond. The sequence RGD is in
CC
     each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)
CC
```

SO

XX

Sequence 11 AA;

```
Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
                                                                               0;
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            7 RKS 9
Qу
              \Pi\Pi
            5 RKS 7
Db
RESULT 20
AAR28128
     AAR28128 standard; protein; 11 AA.
ID
XX
AC
     AAR28128;
XX
DT
     25-MAR-2003 (revised)
     27-NOV-1992
                 (first entry)
DT
XX
DE
     Cell-to-cell binding inhibiting peptide subunit (16).
XX
KW
    Adhesion; integrin; multimer.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FΗ
     Key
     Cross-links
FT
                     4. .11
                     /note= "sequence linked by interchain amide bond at Glu
FT
FT
                     position to Lys residue on Arg3-Lys-Arg2-Ser-Arg-Gly-Asp-
FT
                     Val sequence (see AAR28129)"
XX
PN
     WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
                    90US-00610363.
PR
     07-NOV-1990;
XX
     (SCRI ) SCRIPPS RES INST.
PA
XX
PΙ
     Ruggeri ZM,
                 Houghten RA;
XX
     WPI; 1992-199940/24.
DR
XX
     Peptides inhibiting binding of adhesion mols. to cells expressing
PT
PT
     integrins - for treating and preventing thrombus formation and diseases
PT
     associated with platelet aggregation.
XX
     Disclosure; Page 40-41; 70pp; English.
PS
XX
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
CC
     integrins comprises two subunits having the sequences given in AAR28128-
     29, held together by an interchain stable bond. The sequence RGD is in
CC
     each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)
CC
```

```
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 RER 7
Qу
              111
            3 RER 5
Db
RESULT 21
AAR28130
     AAR28130 standard; protein; 11 AA.
ID
XX
AC
     AAR28130;
XX
DT
     25-MAR-2003 (revised)
     27-NOV-1992 (first entry)
DT
XX
     Cell-to-cell binding inhibiting peptide subunit (18).
DE
XX
KW
     Adhesion; integrin; multimer.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Cross-links
                     3. .11
FT
                     /note= "sequence linked by interchain amide bond at Glu
                     position to Lys residue on Arg2-Lys-Arg3-Ser-Arg-Gly-Asp-
FT
                     Val sequence (see AAR28131)"
FT
XX
PN
     WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
PR
     07-NOV-1990;
                    90US-00610363.
XX
PA
     (SCRI ) SCRIPPS RES INST.
XX
     Ruggeri ZM, Houghten RA;
PI
XX
DR
     WPI; 1992-199940/24.
XX
PT
     Peptides inhibiting binding of adhesion mols. to cells expressing
     integrins - for treating and preventing thrombus formation and diseases
PT
PT
     associated with platelet aggregation.
XX
PS
     Disclosure; Page 41-43; 70pp; English.
XX
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
CC
     integrins comprises two subunits having the sequences given in AAR28130-
CC
     31, held together by an interchain stable bond. The sequence RGD is in
CC
     each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)
```

```
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
            5 RER 7
QУ
              \Pi\Pi
            2 RER 4
Db
RESULT 22
AAR28132
     AAR28132 standard; protein; 11 AA.
ΙD
XX
AC
     AAR28132;
XX
DT
     25-MAR-2003
                 (revised)
     27-NOV-1992 (first entry)
DT
XX
     Cell-to-cell binding inhibiting peptide subunit (20).
DE
XX
KW
     Adhesion; integrin; multimer.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
     Cross-links
                     2. .11
FT
FT
                     /note= "sequence linked by interchain amide bond at Glu
                     position to Lys residue on Arg-Lys-Arg4-Ser-Arg-Gly-Asp-
FT
FT
                     Val sequence (see AAR28133)"
ХX
PN
     WO9208476-A1.
XX
PD
     29-MAY-1992.
XX
PF
     07-NOV-1991;
                    91WO-US008328.
XX
                    90US-00610363.
PR
     07-NOV-1990;
XX
     (SCRI ) SCRIPPS RES INST.
PA
XX
ΡI
     Ruggeri ZM,
                 Houghten RA;
XX
DR
     WPI; 1992-199940/24.
XX
     Peptides inhibiting binding of adhesion mols. to cells expressing
PT
     integrins - for treating and preventing thrombus formation and diseases
PT
PT
     associated with platelet aggregation.
XX
     Disclosure; Page 43-44; 70pp; English.
PS
XX
     A peptide which inhibits binding of adhesion mols. to cells expressing
CC
CC
     integrins comprises two subunits having the sequences given in AAR28132-
     33, held together by an interchain stable bond. The sequence RGD is in
CC
     each of the subunits. (Updated on 25-MAR-2003 to correct PN field.)
CC
```

```
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            5 RER 7
Qу
              111
            1 RER 3
Db
RESULT 23
AAR44843
ID
     AAR44843 standard; peptide; 11 AA.
XX
AC
     AAR44843;
XX
DΤ
     25-MAR-2003 (revised)
     09-JAN-2003 (revised)
DT
DT
     31-JAN-1994
                 (first entry)
XX
DE
     Lactoferrin-related antibacterial peptide.
XX
     Lactoferrin; antibiotic; chelate; mastitis; bowel disorder; disease;
ΚW
     bacteria; yeast; funqi; disinfection; drug; foodstuff; cosmetic;
KW
KW
     toiletries.
XX
     Unidentified.
OS
XX
     WO9314640-A1.
PN
XX
     05-AUG-1993.
PD
XX
PF
     30-NOV-1992;
                    92WO-JP001563.
XX
PR
     23-JAN-1992;
                    92JP-00032660.
PR
     11-MAR-1992;
                    92JP-00052943.
PR
     30-SEP-1992;
                    92JP-00262143.
PR
     30-SEP-1992;
                    92JP-00262559.
XX
PΑ
     (MORG ) MORINAGA MILK IND CO LTD.
XX
PΙ
     Tomita M, Shimamura S, Kawase K, Fukuwatari Y, Takase M;
                Yamauchi K, Wakabayashi H, Tokita Y;
PI
     Bellamy W,
XX
DR
     WPI; 1993-258265/32.
XX
     Antibacterial agent comprising decomposition products of lactoferrin -
PT
     with chelate e.g. EDTA alcohol and/or antibiotic e.g. penicillin, also
PT
PT
     useful against yeast and fungi.
XX
     Disclosure; Page 86; 100pp; Japanese.
PS
XX
CC
     Lactoferrin-related peptides are used in new antibacterial compsn. The
CC
     compsn. is highly effective against a broad range of bacteria, yeasts and
     fungi. It can be used therapeutically (internal and external
CC
     application), e.g. for mastitis, bowel disorders, urinary infections,
CC
```

```
etc. It can also be used for the disinfection and protection of drugs,
CC
     foodstuffs, cosmetics and toiletries and household items (such as kitchen
CC
     towels and toilet paper). (Updated on 09-JAN-2003 to add missing OS
CC
     field.) (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
                                                                  0; Gaps
            3 KTR 5
Qу
              \perp
Db
            1 KTR 3
RESULT 24
AAR32352
     AAR32352 standard; peptide; 11 AA.
ID
XX
    AAR32352;
AC
ХX
DT
     05-JUL-1993 (first entry)
XX
DE
     Human Factor X peptide.
XX
     Anticoagulant; intrinsic; extrinsic; prothrombin activation; thrombin;
KW
     formation; Factor Xa; pathway mediated activation; inhibition.
KW
XX
OS
     Synthetic.
XX
PN
     US5187155-A.
XX
PD
     16-FEB-1993.
XX
PF
     23-JUN-1989;
                    89US-00371561.
XX
PR
     23-JUN-1989;
                    89US-00371561.
XX
     (TEXA ) UNIV TEXAS SYSTEM.
PΑ
XX
PI
     Fair DS;
XX
     WPI; 1993-075751/09.
DR
XX
     Compsns. comprising peptide(s) of 10-50 aminoacid residues - inhibit
PT
     factor X activation and/or Factor Xa function, useful for preventing
PT
PT
     blood clot formation and treating deep vein thrombosis, pulmonary
PT
     embolism, etc.
XX
PS
     Example; Page 6; 23pp; English.
XX
     The sequence is that of a peptide corresponding to amino acids 404-414 of
CC
CC
     the human factor X molecule which was tested for its effect, (as a % of
     the control rate), on the rate of Factor Xa formation and on the rate of
CC
     thrombin formation. The results obtd. were for activation of Factor X by
CC
     the extrinsic activation complex 78%, by the intrinsic activation complex
CC
```

```
CC
     rate was 88% as compared to the control rate
XX
     Sequence 11 AA;
SO
  Query Match
                           27.3%; Score 3; DB 2; Length 11;
                           100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                 0; Mismatches
  Matches
             3; Conservative
                                                    0; Indels
                                                                    0; Gaps
                                                                                 0;
            1 ARK 3
Qу
              \parallel \parallel \parallel \parallel
Db
            1 ARK 3
RESULT 25
AAR37430
     AAR37430 standard; peptide; 11 AA.
ID
XX
AC
     AAR37430;
XX
DT
     25-MAR-2003
                   (revised)
DT
     08-SEP-1993 (first entry)
XX
DΕ
     Promega peptide 5.
XX
     Modified peptide substrate; non-radioactive; detection; dansyl;
KW
KW
     sulphorhodamine 101; lissamine; rhodamine; enzymes; phosphatases;
KW
     protein kinases; proteases.
XX
OS
     Synthetic.
XX
                      Location/Qualifiers
FH
     Key
FT
     Modified-site
FT
                      /note= "detection tag= lissamine, Rhodamine"
XX
PN
     WO9310461-A1.
XX
PD
     27-MAY-1993.
XX
PF
                     92WO-US009595.
     12-NOV-1992;
XX
PR
     12-NOV-1991;
                     91US-00791928.
XX
PA
     (PROM-) PROMEGA CORP.
XX
PΙ
     Shultz JW,
                 White DH;
XX
DR
     WPI; 1993-182698/22.
XX
PT
     Quantitating presence or activity of enzyme - by incubating with modified
     peptide substrate and measuring the modified peptide prod.
PT
XX
PS
     Claim 24; Page 27; 103pp; English.
XX
CC
     Promega peptide 5 is tagged with dansyl at residue 1 and may be used in a
CC
     novel non-radioactive method of quantitating the presence or activity of
     an enzyme. The method can be used for rapid, specific and highly
CC
```

98%, and activation by RVV-X, 76%. For the rate of thrombin formation the

```
proteases, esp. in this case protein kinase C. They can be used to study
CC
     enzyme function in metabolism and in diagnosis of disease. They also
CC
     allow quantitative determ. of the enzyme's activity. See also AAR37426-
CC
CC
     36. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
             3; Conservative
  Matches
            7 RKS 9
Qу
              +++
            5 RKS 7
RESULT 26
AAR34421
     AAR34421 standard; peptide; 11 AA.
XX
AC
     AAR34421;
XX
DT
     25-MAR-2003 (revised)
DT
     05-AUG-1993 (first entry)
XX
     Hepatitis C Ab detection peptide #5.
DE
XX
     Test reagent; dectection; antibody; hepatitis C; virus; HCV; epitope;
KW
KW
     structural region; diagnosis; ss.
XX
os
     Synthetic.
XX
PN
     W09307488-A1.
XX
PD
     15-APR-1993.
XX
PF
     02-OCT-1992;
                    92WO-JP001276.
XX
     02-OCT-1991;
                    91JP-00255524.
PR
PR
     26-MAR-1992;
                    92JP-00068695.
XX
     (EIKE ) EIKEN KAGAKU KK.
PA
     (OSAU ) UNIV OSAKA.
PA
PΑ
     (TANA ) TANABE SEIYAKU CO.
XX
PΙ
     Ishibashi K, Ito M, Yoshida I, Takamizawa A,
                                                       Shibatani T;
XX
DR
     WPI; 1993-134624/16.
XX
PT
     Reagent for detecting antibodies to hepatitis C virus - comprises
     peptide(s) with the same sequence as an epitope of an HCV structural
PT
PT
     region.
XX
PS
     Disclosure; Page 43; 51pp; Japanese.
XX
     The sequences given in AAR34417-25 are peptides which can be used in a
CC
```

sensitive detection of enzymes such as protein kinases, phosphatases and

```
peptides represent epitopes of an HCV structural region and they react
CC
     specifically with antibodies against the HCV structural region. Detection
CC
     is sensitive and and accurate and allows diagnosis of the infection at a
CC
     very early stage. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                              0; Mismatches
             3; Conservative
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2 RKT 4
Qу
              +11
            2 RKT 4
Db
RESULT 27
AAR57464
     AAR57464 standard; protein; 11 AA.
XX
AC
    AAR57464;
XX
DT
     28-FEB-1995 (first entry)
XX
     Lactoferrin derived peptide #27.
DE
XX
     Lactoferrin; chemical; enzymatic; hydrolysis; antimicrobial; antiseptic;
KW
KW
     ischaemic disease.
XX
     Mus musculus.
OS
XX
PN
     JP06172200-A.
XX
PD
     21-JUN-1994.
XX
PF
     08-DEC-1992;
                    92JP-00327738.
XX
PR
     08-DEC-1992;
                    92JP-00327738.
XX
PΑ
     (MORG ) MORINAGA MILK IND CO LTD.
XX
     WPI; 1994-238662/29.
DR
XX
     Brain protectant for preventing ischaemic diseases without side effects -
PT
     comprising 31 specified peptide(s), prepd. by lactoferrin hydrolysis.
PT
XX
     Disclosure; Page 10; 11pp; Japanese.
PS
XX
CC
     The sequences given in AAR57438-68 represent fragments of lactoferrin
     which were derived from the full lenth protein by chemical or enzyme
CC
     hydrolysis. These peptides have brain protecting properties, as well as
CC
     anti-microbial activity. Compositions containing these peptides may be
CC
     prepared with out the addition of antiseptics, and may be administered at
CC
     doses of at least 10 mg for parenteral administration and 100 mg for oral
CC
     administration. These peptides are stable, heat resistant, water soluble
CC
CC
     and may be used for the prevention of ischaemic diseases without side
```

test reagent for the dectection of antibodies against hepatitis C. The

```
XX
     Sequence 11 AA;
SO
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                              0; Mismatches
                                                    0; Indels
                                                                              0;
  Matches
             3; Conservative
                                                                  0; Gaps
            3 KTR 5
Qу
              IIII
            1 KTR 3
Db
RESULT 28
AAR66080
     AAR66080 standard; peptide; 11 AA.
XX
AC
     AAR66080;
XX
DT
     25-MAR-2003
                  (revised)
DT
     18-JUL-1995 (first entry)
XX
DE
     Phosphorylated dbl peptide.
XX
KW
     Breast cancer; tumour specific antigen; phosphorylated dbl; antigen;
     humoral; squamous cell carcinoma; SCC; peptide library; assay; detection;
KW
KW
     diagnosis; vaccine; epitope.
XX
OS
     Synthetic.
XX
FΗ
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "phosphorylated Tyr"
XX
PN
     W09423728-A1.
XX
PD
     27-OCT-1994.
XX
                    94WO-US003969.
PF
     12-APR-1994;
XX
PR
     16-APR-1993;
                    93US-00049698.
PR
     03-FEB-1994;
                    94US-00191338.
XX
     (NOUN ) UNIV NORTHWESTERN.
PA
XX
PI
     Calenoff E;
XX
     WPI; 1994-341472/42.
DR
XX
     Identification 9 immunogenic cancer proteins - e.g. phosphorylated db1
PT
     useful as peptide library of breast cancer specific humoral antigens.
PT
XX
     Claim 32; Page 86; 109pp; English.
PS
XX
     The invention relates to the identification and isolation of tumour-
CC
     specific antigens which can be used for early and specific detection of
CC
     tumours, for generating effector T-cells for adoptive immunotherapy, or
CC
```

effects

```
for formulating specific vaccines for individual tumour patients. Two
CC
     particular sets of antigens are described, one specific for squamous cell
CC
     carcinoma (SCC) and the other specific for breast cancer. Amongst the
CC
     antigens specific for breast cancer is found dbl protein which is
CC
     phosphorylated on at least one Ser, Thr or Tyr site. Phosphorylated p66
CC
     dbl protein for use as the antigen is described in AAR66067. The present
CC
     sequence is a phosphorylated antigenic peptide from dbl protein which is
CC
     also specific for breast cancer. (Updated on 25-MAR-2003 to correct PN
CC
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
             3; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            9 SKD 11
Qу
              +
            6 SKD 8
Db
RESULT 29
AAR66072
     AAR66072 standard; peptide; 11 AA.
XX
AC
     AAR66072:
XX
DT
     25-MAR-2003 (revised)
DT
     18-JUL-1995 (first entry)
XX
DE
     Phosphorylated dbl peptide.
XX
KW
     Breast cancer; tumour specific antigen; phosphorylated dbl; antigen;
KW
     humoral; squamous cell carcinoma; SCC; peptide library; assay; detection;
KW
     diagnosis; vaccine; epitope.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
    Modified-site
                     /note= "phosphorylated Ser"
FT
XX
     WO9423728-A1.
PN
XX
PD
     27-OCT-1994.
XX
                    94WO-US003969.
ΡF
     12-APR-1994;
XX
PR
     16-APR-1993;
                    93US-00049698.
PR
     03-FEB-1994;
                    94US-00191338.
XX
     (NOUN ) UNIV NORTHWESTERN.
PA
XX
PI
     Calenoff E:
XX
DR
     WPI; 1994-341472/42.
XX
```

```
useful as peptide library of breast cancer specific humoral antigens.
PT
XX
PS
     Claim 32; Page 86; 109pp; English.
XX
     The invention relates to the identification and isolation of tumour-
CC
CC
     specific antigens which can be used for early and specific detection of
     tumours, for generating effector T-cells for adoptive immunotherapy, or
CC
CC
     for formulating specific vaccines for individual tumour patients. Two
CC
     particular sets of antigens are described, one specific for squamous cell
     carcinoma (SCC) and the other specific for breast cancer. Amongst the
CC
     antigens specific for breast cancer is found dbl protein which is
CC
CC
     phosphorylated on at least one Ser, Thr or Tyr site. Phosphorylated p66
     dbl protein for use as the antigen is described in AAR66067. The present
CC
CC
     sequence is a phosphorylated antigenic peptide from dbl protein which is
CC
     also specific for breast cancer. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
  Matches
                                0; Mismatches
                                                    0;
                                                                               0;
             3; Conservative
                                                        Indels
                                                                  0; Gaps
            9 SKD 11
Qу
              \perp
Db
            6 SKD 8
RESULT 30
AAR66083
ID
     AAR66083 standard; peptide; 11 AA.
XX
AC
     AAR66083;
XX
DT
     25-MAR-2003
                  (revised)
     18-JUL-1995 (first entry)
DT
XX
DE
     Phosphorylated dbl peptide.
XX
KW
     Breast cancer; tumour specific antigen; phosphorylated dbl; antigen;
KW
     humoral; squamous cell carcinoma; SCC; peptide library; assay; detection;
KW
     diagnosis; vaccine; epitope.
XX
os
     Synthetic.
XX
FΉ
                     Location/Qualifiers
     Key
\operatorname{FT}
     Modified-site
FT
                     /note= "phosphorylated Thr"
FT
     Modified-site
FT
                     /note= "phosphorylated Ser"
XX
PN
     WO9423728-A1.
XX
PD
     27-OCT-1994.
XX
PF
     12-APR-1994;
                    94WO-US003969.
```

Identification 9 immunogenic cancer proteins - e.g. phosphorylated db1

PT

```
XX
     16-APR-1993;
                    93US-00049698.
PR
     03-FEB-1994;
                    94US-00191338.
PR
XX
PΑ
     (NOUN ) UNIV NORTHWESTERN.
XX
ΡI
     Calenoff E;
XX
     WPI; 1994-341472/42.
DR
XX
     Identification 9 immunogenic cancer proteins - e.g. phosphorylated dbl
PT
     useful as peptide library of breast cancer specific humoral antigens.
PT
XX
PS
     Claim 32; Page 86; 109pp; English.
XX
     The invention relates to the identification and isolation of tumour-
CC
CC
     specific antigens which can be used for early and specific detection of
     tumours, for generating effector T-cells for adoptive immunotherapy, or
CC
     for formulating specific vaccines for individual tumour patients. Two
CC
     particular sets of antigens are described, one specific for squamous cell
CC
CC
     carcinoma (SCC) and the other specific for breast cancer. Amongst the
     antigens specific for breast cancer is found dbl protein which is
CC
     phosphorylated on at least one Ser, Thr or Tyr site. Phosphorylated p66
CC
     dbl protein for use as the antigen is described in AAR66067. The present
CC
     sequence is a phosphorylated antigenic peptide from dbl protein which is
CC
     also specific for breast cancer. (Updated on 25-MAR-2003 to correct PN
CC
CC
     field.)
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            9 SKD 11
Qу
              | | |
Db
            6 SKD 8
RESULT 31
AAR48537
ID
     AAR48537 standard; peptide; 11 AA.
XX
AC
     AAR48537;
XX
DT
     25-MAR-2003
                  (revised)
DT
     10-AUG-1994
                  (first entry)
XX
DE
     Lactoferrin derived peptide #31.
XX
     Decomposition; lactoferrin; digestion; enzyme; pepsin; trypsin;
KW
     antioxidant; oxidation; inhibitor; vitamin E; ascorbic acid; vitamin A;
KW
     beta-carotene; superoxidase dismutase; coenzyme Q; lipid oxidation;
KW
KW
     foodstuff; drugs; health food; toiletries; cosmetics.
XX
OS
     Bos taurus.
XX
```

```
WO9403555-A1.
PN
XX
     17-FEB-1994.
PD
XX
PF
     04-AUG-1993;
                    93WO-JP001090.
XX
     07-AUG-1992;
                    92JP-00211335.
PR
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PΑ
XX
     Tomita M, Shimamura S, Kawase K,
                                         Fukuwatari Y, Takase M;
PI
                 Yamauchi K, Wakabayashi H, Tokida Y;
PI
     Bellamy WR,
XX
     WPI; 1994-065650/08.
DR
XX
     Antioxidant peptide lactoferrin decomposition product - prevents
PT
     oxidation of lipid(s) in foodstuffs and drugs without affecting their
PΤ
     taste.
PT
XX
     Claim 3; Page 41; 47pp; Japanese.
PS
XX
     The sequences given in AAR48507-37 are peptides derived by the
CC
     decomposition of lactoferrin, pref. by digestion with an enzyme, eg.
CC
     pepsin or trypsin. These peptides may be used in an antioxidant
CC
     composition which may also contain an oxidation inhibitor such as vitamin
CC
     E, ascorbic acid, vitamin A, beta-carotene, superoxidase dismutase or
CC
     coenzyme Q. The antioxidant prevents lipid oxidation in foodstuffs,
CC
     drugs, health foods, toiletries and cosmetics. (Updated on 25-MAR-2003 to
CC
CC
     correct PN field.)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            3 KTR 5
Qy
              \perp
Db
            1 KTR 3
RESULT 32
AAR63547
     AAR63547 standard; peptide; 11 AA.
XX
AC
     AAR63547;
XX
DT
     25-MAR-2003 (revised)
DT
     07-JUN-1995 (first entry)
XX
     HT-LCF peptide fragment from HPLC peak A.
DE
XX
     rHT-LCF; HT-1376 cell derived leukocyte chemotactic factor;
KW
     immunopotentiator; monocyte and macrophage migration factor;
KW
KW
     wound healing.
XX
OS
     Homo sapiens.
```

```
XX
    WO9421809-A1.
PN
XX
PD
     29-SEP-1994.
XX
     11-MAR-1994;
                    94WO-JP000397.
PF
XX
     15-MAR-1993;
                    93JP-00054349.
PR
XX
     (CYTO-) INST CYTOSIGNAL RES INC.
PΑ
XX
     Kawamura K,
                 Watanabe K;
PI
XX
     WPI; 1994-317029/39.
DR
XX
    Monocyte and macrophage migration factor protein - is immuno-potentiator
PT
     and vulnerary and is isolated from culture of HT-1376 cell line by
PT
     recombinant methods.
PT
XX
     Example 16; Page 47; 68pp; Japanese.
PS
XX
     Proteins having monocyte and macrophage migration factor activity were
CC
     isolated from human HT-1376 cells (ATCC CRL-1472). The proteins are
CC
     useful as immunopotentiators for treatment of infections, immune
CC
     deficiency diseases and cancer. The proteins are also useful in wound
CC
     healing preparations and for treatment of skin diseases. AAR63547-R63551
CC
     are peptide fragments isolated from different peaks observed following
CC
     HPLC separation as part of the rHT-LCF isolation procedure. (Updated on
CC
     25-MAR-2003 to correct PN field.)
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            3 KTR 5
Qу
              111
Db
            7 KTR 9
RESULT 33
AAR66534
ID
    AAR66534 standard; peptide; 11 AA.
XX
AC
     AAR66534;
XX
DT
     27-AUG-2003
                  (revised)
DT
     25-MAR-2003
                  (revised)
DT
     10-AUG-1995
                  (first entry)
XX
     Human influenza virus M protein residues 41-51.
DE
XX
KW
     Human major histocompatibility complex class I; MHC class I;
KW
     allele HLA-A2.1; influenza M protein; matrix; membrane;
KW
     HLA class I-restricted CD8+ cytotoxic T cell response.
XX
```

```
OS
     Influenza virus.
XX
     W09426903-A2.
PN
XX
PD
     24-NOV-1994.
XX
PF
     18-MAY-1994;
                    94WO-NL000114.
XX
     18-MAY-1993;
                    93EP-00201429.
PR
XX
     (UYLE-) RIJKSUNIV LEIDEN.
PΑ
     (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
PA
XX
PI
     Melief CJM,
                 Kast WM;
XX
DR
     WPI; 1995-022282/03.
XX
     Human influenza virus peptide(s) - have ability to bind Major
PT
     Histocompatibility Complex Class I molecule, useful for treating
PT
     influenza-related disease.
PT
XX
PS
     Claim 4; Page 29; 33pp; English.
XX
     Peptide sequences AAR66530-R66544 are derived from human influenza virus
CC
     M protein and have the ability to bind to human MHC class I allele HLA-
CC
     A2.1. The peptides are useful for inducing a T-cell response
CC
     (specifically, an HLA class I-restricted CD8+ cytotoxic T cell response)
CC
     effective against human influenza virus. (Updated on 25-MAR-2003 to
CC
     correct PN field.) (Updated on 27-AUG-2003 to correct OS field.)
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
            3; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            3 KTR 5
              111
            7 KTR 9
Db
RESULT 34
AAR70606
ID
     AAR70606 standard; peptide; 11 AA.
XX
AC
     AAR70606;
XX
     14-FEB-1996 (first entry)
DT
XX
DΕ
     HIV(B35)ARV2-7, human immunodeficiency virus epitope.
XX
     HLA; human lymphocyte antigen; HIV; human immunodeficiency virus;
KW
     binding peptide; induce killer cell; prevention; treatment; AIDS;
KW
KW
     autoimmune disease syndrome; vaccine.
XX
OS
     Human immunodeficiency virus.
XX
```

```
WO9511255-A1.
PN
XX
     27-APR-1995.
PD
XX
PF
     19-OCT-1994;
                    94WO-JP001756.
XX
     19-OCT-1993;
                    93JP-00261302.
PR
XX
     (AJIN ) AJINOMOTO KK.
PΑ
XX
     Takiquchi M, Miwa K;
PI
XX
     WPI; 1995-170188/22.
DR
XX
     HLA-binding peptide fragments from HIV proteins - induce killer cells
PT
     which target HIV-infected cells and can be incorporated into anti-HIV
PT
PT
     vaccines.
XX
     Example 1; Page 10; 61pp; Japanese.
PS
XX
     AAR70606 is a peptide fragment derived from an HIV (Human
CC
     Immunodeficiency Virus) protein and is capable of binding to a human
CC
     lymphocyte antigen. The peptide can induce killer cells which target HIV-
CC
     infected cells. It is also useful in the prevention and treatment of HIV
CC
     and AIDS. Anti-HIV vaccines may incorporate the peptides, or may
CC
     incorporate a vector (such as vaccinia or BCG) contg. DNA encoding the
CC
     peptides
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
  Matches
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            7 RKS 9
Qу
              111
Db
            7 RKS 9
RESULT 35
AAR84701
ID
     AAR84701 standard; peptide; 11 AA.
XX
AC
     AAR84701;
XX
DT
     13-JUN-1996 (first entry)
XX
     Bovine lactoferrin derived angina pectoris treating peptide.
DE
XX
KW
     Bovine lactoferrin; angina pectoris; treatment; low toxicity;
     no side effects; heat resistance; water solubility; stability;
KW
KW
     aqueous solution; preservative free.
XX
OS
     Bos taurus.
XX
PN
     JP07278011-A.
XX
```

```
24-OCT-1995.
PD
XX
     01-APR-1994;
                     94JP-00085243.
PF
XX
     01-APR-1994;
                     94JP-00085243.
PR
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PΑ
XX
DR
     WPI; 1995-400916/51.
XX
PT
     Peptide for treatment of angina pectoris - has low toxicity and is heat
     resistant and water soluble.
PT
XX
     Claim 1; Page 11; 12pp; Japanese.
PS
XX
     The present peptide is a bovine lactoferrin derived, angina pectoris
CC
     treatative agent. It has low toxicity and side effects, is heat
CC
CC
     resistant, water soluble and stable in an aq. soln. . It also requires no
CC
     preservative
XX
SQ
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
            3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                    0; Gaps
                                                                                0;
            3 KTR 5
Qу
              \parallel \parallel \parallel \parallel
Db
            1 KTR 3
RESULT 36
AAR80266
ID
     AAR80266 standard; peptide; 11 AA.
XX
AC
     AAR80266;
XX
DT
     21-FEB-1996 (first entry)
XX
DE
     Anti-parasitic lactoferrin hydrolysate derived peptide.
XX
KW
     Anti-parasitic; lactoferrin; hydrolysate; non-toxic; aquatic animals;
KW
     cultured fish; shellfish.
XX
os
     Homo sapiens.
XX
ΡN
     JP07145069-A.
XX
     06-JUN-1995.
PD
XX
PF
     26-NOV-1993;
                     93JP-00296281.
XX
PR
     26-NOV-1993;
                    93JP-00296281.
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PA
XX
DR
     WPI; 1995-237144/31.
```

```
XX
     Drug containing lactoferrin or peptide(s) isolated from its hydrolysates
РΤ
     - for prevention or therapy of parasitic diseases in aquatic animals esp.
PT
     cultured fish and shellfish.
PT
XX
PS
     Claim 3; Page 12; 14pp; Japanese.
XX
     AAR79746/60 and AAR80258/70 are non-toxic anti-parasitic peptides derived
CC
     from lactoferrin hydrolysates. Alone, or in combination with lactoferrins
CC
     and/or their hydrolysates, the peptides can be used to treat or prevent
CC
     infectious diseases caused by parasites in aquatic animals, e.g. cultured
CC
CC
     fish and shellfish
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
  Matches
             3; Conservative
                                                                              0;
                                                       Indels
                                                                  0; Gaps
            3 KTR 5
Qу
              111
            1 KTR 3
Db
RESULT 37
AAR84537
     AAR84537 standard; peptide; 11 AA.
XX
AC
     AAR84537;
XX
DT
     06-JUN-1996 (first entry)
XX
DΕ
     Hepatitis C virus core antigen (amino acids 8-18).
XX
KW
     Tailor-made; antigen/antibody specificity exchanger; HIV infection;
KW
     heavy chain; complementarity determining region; CDR;
KW
     human immunodeficiency virus; variable loop 3 domain; redirecting;
ΚW
     epitope; HCV; hepatitis C virus; core protein.
XX
OS
     Synthetic.
XX
PN
     WO9529938-A1.
XX
PD
     09-NOV-1995.
XX
PF
     27-APR-1995;
                    95WO-SE000468.
XX
                    94SE-00001460.
PR
     28-APR-1994;
XX
PA
     (FERR ) FERRING AB.
XX
ΡI
     Saellberg M;
XX
     WPI; 1995-393040/50.
DR
XX
PT
     Antigen-antibody specificity exchanger - used in a method to redirect a
PT
     patients antibodies against polio: virus to fight HIV infection in the
```

```
PT
     patient.
XX
     Claim 7; Page 35; 38pp; English.
PS
XX
     An antigen/antibody specificity exchanger comprises an antibody- derived
CC
     amino acid sequence (A) which specifically binds to a particular antigen,
CC
     linked to an amino acid sequence (C) to which a particular antibody
CC
     binds. The present sequence is a preferred example of a type (C) sequence
CC
CC
     ; it is an epitope from hepatitis C virus. Preferred type (A) sequences
CC
     are complementarity determining regions from e.g. anti-HIV-1 antibodies.
     The specificity exchanger can redirect antibodies already present in a
CC
     patient and raised against a particular antigen, to fight a different
CC
     antigen. For example, it was shown that anti-poliovirus antibodies could
CC
     be redirected to fight HIV
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
             3; Conservative
                                                    0; Indels
  Matches
            2 RKT 4
Qу
              \mathbf{I}
            2 RKT 4
Db
RESULT 38
AAR64598
     AAR64598 standard; peptide; 11 AA.
XX
AC
     AAR64598;
XX
DT
     25-MAR-2003
                  (revised)
DT
     01-SEP-1995
                  (first entry)
XX
DE
     RF-1 peptide 43 from respiratory syncitial virus.
XX
     antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
KW
     human immunodeficiency virus; transmembrane protein; gp41; alpha helix;
KW
     leucine zipper; DP-185; respiratory syncitial virus; RSV.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                     /note= "optionally has an amino, acetyl, 9-
FT
                     fluorenylmethoxy-carbonyl, hydrophobic or macromolecular
FT
FT
                     carrier gp. attached"
FT
     Modified-site
                     /note= "optionally has a carboxyl, amido, hydrophobic or
FT
                     macromolecular carrier gp. attached"
FT
XX
PN
     WO9428920-A1.
XX
PD
     22-DEC-1994.
XX
PF
     07-JUN-1994;
                   94WO-US005739.
```

```
XX
PR
     07-JUN-1993; 93US-00073028.
XX
     (UYDU-) UNIV DUKE.
PA
XX
     Bolognesi DP, Matthews TJ, Wild CT, Barney SO, Lambert DM;
PΙ
     Petteway SR;
PΙ
XX
     WPI; 1995-036105/05.
DR
XX
     Computer search generated synthetic peptides - are inhibitors of HIV
PT
     transmission.
PT
XX
     Claim 14; Page 138; 182pp; English.
PS
XX
     AAR64591-623 are peptide derivatives of a 37 mer RF-1 peptide derived
CC
     from respiratory syncitial virus (RSV) (AAR64590) which have been truncated at the amino terminus. The peptides are DP-178 like peptides.
CC
CC
     DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI
CC
     transmembrane protein qp41. It forms a putative alpha helix at the C-
CC
     terminal end of the gp41 ectodomain, and complexes with DP-107
CC
     (corresponds to amino acids 558-595) which contains a leucine zipper
CC
CC
     motif. The peptides complex via non-covalent protein-protein
     interactions. The peptide derivatives were identified by a computer
CC
     assisted peptide sequence search. The antiviral activity of this peptide
CC
CC
     is not stated in the specification. (Updated on 25-MAR-2003 to correct PN
CC
     field.)
XX
SO
     Sequence 11 AA;
  Query Match
                           27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
 Matches
             3; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                    0; Gaps
                                                                                 0;
Qу
            7 RKS 9
              +11
            5 RKS 7
Db
RESULT 39
AAR87611
ID
     AAR87611 standard; peptide; 11 AA.
XX
AC
     AAR87611;
XX
DT
     11-JUL-1996 (first entry)
XX
DE
     Lactoferrin-derived anti-fungal peptide.
XX
     Anti-fungal; water soluble; lactoferrin; stable; anti-bacterial;
KW
     rapidly metabolised.
KW
XX
OS
     Synthetic.
XX
PN
     JP07309774-A.
XX
PD
     28-NOV-1995.
```

```
XX
    17-MAY-1994;
                    94JP-00126882.
ΡF
XX
     17-MAY-1994;
                    94JP-00126882.
PR
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PA
XX
    WPI; 1996-045320/05.
DR
XX
PT
     Water-soluble anti-fungus agent derived from lactoferrin - has
     antibacterial action and is not cytotoxic to animal cells.
PT
XX
PS
     Claim 1; Page 10; 11pp; Japanese.
XX
     AAR87599-R87627 are the active ingredients of an anti-fungal agent. The
CC
     agent has anti-bacterial as well as anti-fungal properties but is only
CC
     cytotoxic to fungal cells. The agent is water-soluble, hence drugs made
CC
     from the agent are rapidly metabolised. The peptides are derived from
CC
     fragmented lactoferrin
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                              0; Mismatches
                                                                             0;
 Matches
             3; Conservative
                                                  0; Indels
                                                                 0; Gaps
            3 KTR 5
Qу
              1 KTR 3
RESULT 40
AAR91854
ID
    AAR91854 standard; peptide; 11 AA.
XX
AC
     AAR91854;
XX
DT
     20-SEP-1996 (first entry)
XX
     Lactoferrin-derived specific peptide 27, useful for wound healing.
DE
XX
     Bovine lactoferrin; wound healing; skin damage; burn; bedsore.
KW
XX
OS
     Synthetic.
XX
PN
     JP08081387-A.
XX
PD
     26-MAR-1996.
XX
ΡF
     09-SEP-1994;
                    94JP-00241894.
XX
     09-SEP-1994;
                    94JP-00241894.
PR
XX
PA
     (MORG ) MORINAGA MILK IND CO LTD.
XX
DR
     WPI; 1996-217187/22.
XX
```

```
Wound healing agent comprising specific peptide(s) - is heat resistant,
PT
     stable in aqueous solution and suitable for oral, external or
РΤ
     subcutaneous admin.
PT
XX
PS
     Claim 1; Page 11; 12pp; Japanese.
XX
     The present peptide is useful in a novel wound healing agent. The agent
CC
     is thermostable and stable in aqueous solution. It is administered
CC
     externally, orally or subcutaneously for treatment of skin damage such as
CC
CC
     burns or bedsores
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
             3; Conservative
            3 KTR 5
Qу
              1 KTR 3
Db
RESULT 41
AAW12602
     AAW12602 standard; peptide; 11 AA.
XX
AC
     AAW12602;
XX
DT
     08-APR-1997 (first entry)
XX
DE
     SH2 binding peptide #32.
XX
KW
     Core peptide; src homology region 2 binding peptide; SH2; cell growth;
KW
     differentiation; regulation; receptor tyrosine kinase pathway; cancer;
KW
     signal transduction pathway; non-insulin dependent diabetes;
KW
     insulin-resistant diabetes.
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Disulfide-bond
                     1. .11
FT
     Modified-site
                     /label= OTHER
FT
                     /note= "opt. selected from tyrosine, phosphotyrosine,
FT
                     tyrosine isosteres, and phosphotyrosine isosteres"
FT
FT
     Modified-site
                     10
                     /label= OTHER
FT
                     /note= "opt. selected from tyrosine, phosphotyrosine,
FT
                     tyrosine isosteres, and phosphotyrosine isosteres, esp.
FT
                     phosphotyrosine"
FT
FT
     Modified-site
                     /note= "amidated C-terminal"
FT
XX
PN
     W09623813-A1.
XX
PD
     08-AUG-1996.
XX
```

```
31-JAN-1996;
                    96WO-US001544.
PF
XX
     01-FEB-1995;
                    95US-00382100.
PR
XX
     (AFFY-) AFFYMAX TECHNOLOGIES NV.
PA
XX
PΙ
     Patel DV, Gordeev MF, Gordon E, Grove JR, Hart CP, Kim MH;
PI
     Szardenings AK;
XX
DR
     WPI; 1996-371373/37.
XX
     Peptide(s) which bind to SH2 domains - are used to treat diseases
PT
PT
     associated with aberrant cell growth, differentiation or regulation
PT
     associated with defects in receptor tyrosine kinase pathways.
XX
     Claim 14; Page 118; 203pp; English.
PS
XX
CC
     The sequences given in AAW12571-614 represent src homology region 2 (SH2)
CC
     binding peptides which contain a core peptide which corresponds to the
CC
     formula: Z7-X-Z8-X X = any D- or L- amino acid; Z7 = phosphotyrosine or
     its isostere; Z8 = asparagine or its isostere; the amino terminus is
CC
CC
     acylated, and the peptide is less than 14 residues in length, with the
CC
     proviso that if Z7 is phosphotyrosine and Z8 is asparagine, then the
CC
     peptide is not GDGZ7XZ8XPLLL. These SH2 binding peptides are used to
     treat of diagnose diseases associated with aberrant cell growth,
CC
CC
     differentiation or regulation which is associated with defects in
CC
     receptor tyrosine kinase pathways, by partially blocking or inhibiting a
CC
     cellular signal transduction pathway. The disease may be cancer, a
CC
     developmental or differentiation disease or insulin-resistant (or non-
CC
     insulin dependent) diabetes
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                                                 0; Gaps
  Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                             0:
            5 RER 7
Qу
             +111
Db
            2 RER 4
RESULT 42
AAW05350
ID
    AAW05350 standard; peptide; 11 AA.
XX
AC
     AAW05350;
XX
DT
     30-APR-1997 (first entry)
XX
DE
     Residues 363-373 of p53.
XX
     Human; p53; cell proliferation; cell death; regulator; tumour; psoriasis;
KW
     negative regulatory region; DNA damaging agent; transplant rejection;
KW
     abnormal cell proliferation; atherosclerosis; cancer; autoimmune disease;
KW
KW
     arterial restenosis; immune response; apoptosis; inducer; therapy;
     proliferating lymphocytes.
KW
```

```
XX
     Homo sapiens.
OS
XX
     WO9625434-A1.
PN
XX
PD
     22-AUG-1996.
XX
                    96WO-US001535.
PF
     16-FEB-1996;
XX
PR
                    95US-00392542.
     16-FEB-1995;
XX
PA
     (WIST-) WISTAR INST.
     (FARB ) BAYER CORP.
PΑ
XX
PI
     Halazonetis T, Hartwig W;
XX
    WPI; 1996-393345/39.
DR
XX
     New human p53-isomorphic peptide(s) and peptido:mimetic cpds. - used for
PT
     activating p53 function, e.g. for treating tumours, cancers, psoriasis,
PT
PT
     etc.
XX
     Claim 2; Page 35; 55pp; English.
PS
XX
CC
     AAW05350-W05364 represent the p53 (see AAW05344 for full length wild type
     sequence) peptides of the invention. The p53 protein functions to
CC
     regulate cell proliferation and cell death, and is mutated in more than
CC
     half of all human tumours. These sequences are used to activate the DNA
CC
CC
     binding activity of wild type p53, and p53 mutants (see AAW05345-W05349).
     The peptides of the invention consist of at least four sequential amino
CC
CC
     acids from a negative regulatory region which maps to residues 361-383 of
CC
     p53. These sequences preferably contain four amino acids from a non-human
CC
     p53 sequence, contain D-form amino acids, and can also be cyclic
CC
     peptides. The sequences retain the structural characteristics of the
CC
     original peptides, but the modifications render them less susceptible to
CC
     cleavage by proteases and exopeptidases. As these sequences activate p53
CC
     DNA binding, they can be used to identify p53 mutants. The peptides can
CC
     also be used for treating a patient with a tumour expressing a p53 mutant
     whose ability to bind DNA may be activated by one of the peptides. They
CC
     can also be used for treating conditions such as exposure to DNA damaging
CC
CC
     agents, abnormal cell proliferation characteristic of psoriasis,
CC
     atherosclerosis, cancer, arterial restenosis, autoimmune diseases and
CC
     undesirable immune responses accompanying rejection of a transplant. The
     peptides can also induce apoptosis of specific cells, such as
CC
CC
     proliferating lymphocytes
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
             3: Conservative
                               0; Mismatches
                                                    0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            8 KSK 10
Qy
              III
Db
            8 KSK 10
```

RESULT 43 AAW05374 AAW05374 standard; peptide; 11 AA. XX AC AAW05374; XX 30-APR-1997 (first entry) DTXX Reverse D peptide p53RDp363-373. DE XX Human; p53; cell proliferation; cell death; regulator; tumour; psoriasis; ΚW negative regulatory region; DNA damaging agent; transplant rejection; KW abnormal cell proliferation; atherosclerosis; cancer; autoimmune disease; KW arterial restenosis; immune response; apoptosis; inducer; therapy; ΚW proliferating lymphocytes. KW XX os Synthetic. XX PNWO9625434-A1. XX PD22-AUG-1996. XX 16-FEB-1996; 96WO-US001535. PFXX PR 16-FEB-1995; 95US-00392542. XX PA(WIST-) WISTAR INST. (FARB) BAYER CORP. PΑ XX Halazonetis T, Hartwig W; PIXX WPI; 1996-393345/39. DR XX PTNew human p53-isomorphic peptide(s) and peptido:mimetic cpds. - used for PTactivating p53 function, e.g. for treating tumours, cancers, psoriasis, PTetc. XX Disclosure; Page 13; 55pp; English. PS XX CC AAW05365-W05374 represent examples of the p53 (see AAW05344 for full CC length wild type sequence) peptides of the invention. These sequences all have additions or deletions of residues from the wild type peptide CC CC fragments of the invention (see AAW05350-W05364). The p53 protein functions to regulate cell proliferation and cell death, and is mutated CC in more than half of all human tumours. These sequences are used to CCactivate the DNA binding activity of wild type p53, and p53 mutants (see CCCC AAW05345-W05349). The peptides of the invention consist of at least four sequential amino acids from a negative regulatory region which maps to CC residues 361-383 of p53. These sequences preferably contain four amino CC acids from a non-human p53 sequence, contain D-form amino acids, and can CC CC also be cyclic peptides. The sequences retain the structural characteristics of the original peptides, but the modifications render CC them less susceptible to cleavage by proteases and exopeptidases. As CCthese sequences activate p53 DNA binding, they can be used to identify CC p53 mutants. The peptides can also be used for treating a patient with a CC tumour expressing a p53 mutant whose ability to bind DNA may be activated CCby one of the peptides. They can also be used for treating conditions CC

```
such as exposure to DNA damaging agents, abnormal cell proliferation
CC
     characteristic of psoriasis, atherosclerosis, cancer, arterial
CC
     restenosis, autoimmune diseases and undesirable immune responses
CC
     accompanying rejection of a transplant. The peptides can also induce
CC
     apoptosis of specific cells, such as proliferating lymphocytes
CC
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%;
                                  Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                 0; Mismatches
                                                    0;
 Matches
             3; Conservative
                                                        Indels
                                                                   0;
                                                                               0;
                                                                      Gaps
            8 KSK 10
Qу
              111
            2 KSK 4
Db
RESULT 44
AAW03991
     AAW03991 standard; peptide; 11 AA.
XX
AC
    AAW03991;
XX
DT
     30-APR-1997 (first entry)
XX
     pY peptide liagnd #2.
DE
XX
KW
     Polymerase chain reaction; PCR; amplify; primer; chicken; src;
     SH2 domain; DET1; DET2; erythropoiesis; anaemia; haematopoiesis;
KW
KW
     antagonist.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
                     4
FT
                     /note= "Phosphorylated Tyr"
XX
PN
     EP728482-A2.
XX
     28-AUG-1996.
PD
XX
                    96EP-00200269.
PF
     07-FEB-1996;
XX
     10-FEB-1995;
                    95US-00386381.
PR
     07-MAR-1995;
                    95US-00400220.
PR
PR
     30-JUN-1995;
                    95US-00497357.
     11-OCT-1995;
                    95US-00540680.
PR
PR
     29-DEC-1995;
                    95US-00581089.
XX
PA
     (SMIK ) SMITHKLINE BEECHAM CORP.
XX
PI
     Dunnington DJ;
XX
DR
     WPI; 1996-386024/39.
XX
     Use of selective antagonist of haematopoietic acid phosphatase SH2 domain
PT
     - with no significant affinity for other SH2 domains, to increase
PT
```

```
erythropoiesis and haematopoiesis, esp. for treatment of anaemia.
PT
XX
     Example; Page 21; 46pp; English.
PS
XX
     The sequences given in AAW03990-94 represent phosphorylated Tyr peptides
CC
     which were used in the isolation of a compound for improving
CC
     erythropoiesis. The isolated compound may be used for the treatment of
CC
     anaemia or to enhance haematopoiesis. The isolated compound antagonises
CC
CC
     the hcp SH2 domain without side effects caused by non-specific inhibition
CC
     of other SH2 domains
XX
     Sequence 11 AA;
SQ
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
             3; Conservative
            9 SKD 11
Qу
              +
            8 SKD 10
Db
RESULT 45
AAR96813
ID
     AAR96813 standard; peptide; 11 AA.
XX
AC
    AAR96813;
XX
     29-NOV-1996 (first entry)
DT
XX
DE
     Human laminin b2 fragment, homologous to N.gonorrhoeae MS11 IgaP.
XX
KW
     IqA protease precursor; IPP; bacterial polyprotein; autoimmune;
KW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
     human laminin b2; Neisseria gonorrhoeae.
XX
OS
     Homo sapiens.
XX
                     Location/Qualifiers
FH
     Key
FT
     Region
                     1. .5
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
FT
                     IgaP"
FT
     Region
FT
                     /note= "identical to corresponding residue in Neisseria
FT
                     gonorrhoeae IgaP"
FT
     Region
                     10. .11
                     /note= "identical to sequence in Neisseria gonorrhoeae
FT
FT
                     IgaP"
XX
PN
     WO9609395-A2.
XX
PD
     28-MAR-1996.
XX
PF
     21-SEP-1995;
                    95WO-EP003726.
XX
                    94DE-04433708.
PR
     21-SEP-1994;
XX
```

```
(PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
PΑ
XX
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PI
     Oetzelberger KB;
PΙ
XX
     WPI; 1996-188456/19.
DR
XX
     Medicaments for treating auto-immune or viral diseases - contg.
PT
     substances interfering with bacterial poly:protein function.
PT
XX
PS
     Claim 32; Fig 2; 117pp; German.
XX
     The present sequence from human laminin b2 has homology to a cleavage
CC
     product from the IgaP domain of the precursor of IgA-protease polyprotein
CC
     (IPP) of Neisseria gonorrhoeae strain MS11. The Neisseria IPP has been
CC
     implicated in rheumatoid arthritis and other auto-immune diseases. The
CC
     polyprotein also activates proviruses, including HIV. Substances which
CC
CC
     interfere with the function of IPP from Neisseria will be useful for
     treating associated autoimmune diseases and viral infections. Peptides
CC
     comprising the homology region sequences, whether from Neisseria or from
CC
CC
     humans, are claimed
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
            3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                              0;
  Matches
                                                                 0; Gaps
            1 ARK 3
Qу
              111
Db
            3 ARK 5
RESULT 46
AAR96812
ID
     AAR96812 standard; peptide; 11 AA.
XX
AC
    AAR96812;
XX
DT
     16-OCT-2003
                  (revised)
DT
     29-NOV-1996
                  (first entry)
XX
     N.gonorrhoeae MS11 IgaP region, homologous to human laminin b2.
DE
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
KW
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
     human laminin b2.
KW
XX
OS
     Neisseria gonorrhoeae; MS11.
XX
FH
     Kev
                     Location/Qualifiers
FT
     Region
                     /note= "identical to sequence in human laminin b2"
FT
FT
     Region
                     /note= "identical to corresponding residue in human
FT
FT
                     laminin b2"
FT
     Region
                     10. .11
```

```
/note= "identical to sequence in human laminin b2"
FT
XX
     W09609395-A2.
PN
XX
PD
     28-MAR-1996.
XX
PF
     21-SEP-1995;
                    95WO-EP003726.
XX
                    94DE-04433708.
PR
     21-SEP-1994;
XX
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
PA
XX
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
ΡI
     Oetzelberger KB;
ΡI
XX
     WPI; 1996-188456/19.
DR
XX
PT
     Medicaments for treating auto-immune or viral diseases - contg.
     substances interfering with bacterial poly:protein function.
PT
XX
     Claim 32; Fig 2; 117pp; German.
PS
XX
     The present sequence is a cleavage product from the IgaP domain of the
CC
     precursor of IqA-protease polyprotein (IPP) of Neisseria gonorrhoeae
CC
CC
     strain MS11. The Neisseria IPP has marked homology to certain human
     proteins and has been implicated in rheumatoid arthritis and other auto-
CC
     immune diseases. The polyprotein also activates proviruses, including
CC
     HIV. Substances which interfere with the function of IPP from Neisseria
CC
CC
     will be useful for treating associated autoimmune diseases and viral
     infections. The present peptide is homologous to human laminin b2.
CC
CC
     (Updated on 16-OCT-2003 to standardise OS field)
XX
SO
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
  Matches
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            1 ARK 3
              III
            3 ARK 5
Db
RESULT 47
AAR96834
     AAR96834 standard; peptide; 11 AA.
XX
AC
     AAR96834;
XX
DT
     16-OCT-2003 (revised)
DT
     29-NOV-1996 (first entry)
XX
DE
     N. gonorrhoeae Iga alphal region, homologous to human Nfh protein.
XX
KW
     IgA protease precursor; IPP; bacterial polyprotein; autoimmune;
     viral infection; rheumatoid arthritis; AIDS; meningococcal bacteria;
KW
KW
     human neurofilament triplet h protein; Nfh.
```

```
XX
OS
     Neisseria gonorrhoeae; MS11.
XX
                     Location/Qualifiers
FH
     Key
FT
     Region
                     1. .3
                     /note= "identical to sequence in human neurofilament
FT
                     triplet h protein"
FT
FT
     Region
                     5. .7
                     /note= "identical to sequence in human neurofilament
FT
                     triplet h protein"
FT
                     10. .11
FT
     Region
                     /note= "identical to sequence in human neurofilament
FT
FT
                     triplet h protein"
XX
     WO9609395-A2.
PN
XX
PD
     28-MAR-1996.
XX
                  95WO-EP003726.
PF
     21-SEP-1995;
XX
PR
     21-SEP-1994;
                    94DE-04433708.
XX
     (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
PA
XX
     Meyer TF, Pohlner J, Beck SC, Jose J, Woelk U, Lorenzen DR;
PΙ
     Oetzelberger KB;
PΙ
XX
     WPI; 1996-188456/19.
DR
XX
     Medicaments for treating auto-immune or viral diseases - contq.
PT
     substances interfering with bacterial poly:protein function.
PT
XX
PS
     Claim 32; Fig 2; 117pp; German.
XX
     The present sequence is a cleavage product from the Iga alpha 1 domain of
CC
     the precursor of IgA-protease polyprotein (IPP) of N.gonorrhoeae strain
CC
     MS11. The Neisseria IPP has marked homology to certain human proteins and
CC
     has been implicated in rheumatoid arthritis and other auto-immune
CC
     diseases. The polyprotein also activates proviruses, including HIV.
CC
     Substances which interfere with the function of IPP from Neisseria will
CC
     be useful for treating associated autoimmune diseases and viral
CC
     infections. The present peptide is homologous to a region from human
CC
     neurofilament triplet h protein. (Updated on 16-OCT-2003 to standardise
CC
CC
     OS field)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                0; Mismatches
                                                                              0;
                                                                  0; Gaps
             3; Conservative
                                                   0; Indels
            1 ARK 3
Qу
              7 ARK 9
```

```
AAR81803
     AAR81803 standard; peptide; 11 AA.
TD
XX
    AAR81803;
AC
XX
DT
     27-AUG-2003
                  (revised)
                  (first entry)
DΤ
     10-JUL-1996
XX
     E-Dex integrin inhibitor 1 epitope (aa78-88).
DE
XX
     Integrin inhibitor; E-Dex; neutrophil; leukocyte; trans-migration;
KW
     cell adhesion; tick-derived antiinflammatory protein; Ixodes pacificus;
KW
     Amblyomma americanum; epitope; antibody; immunoassay.
KW
XX
OS
     Ixodida sp.
XX
    WO9605304-A1.
PN
XX
PD
     22-FEB-1996.
XX
     08-AUG-1995;
                    95WO-US010138.
ΡF
XX
                    94US-00287730.
PR
     09-AUG-1994;
XX
     (ATHE-) ATHENA NEUROSCIENCES INC.
PA
XX
     Bard F, Yednock TA, Keim PS, Basi GS;
PΙ
XX
DR
     WPI; 1996-139700/14.
XX
     Tick derived anti-inflammatory proteins E-Dex and Y/A-Dex - used to
PT
     inhibit leukocyte trans-migration and in the treatment of inflammatory
PT
PT
     disease.
XX
PS
     Disclosure; Page 40; 76pp; English.
XX
     Preferred polypeptide epitopes (AAR81797-804) of tick-derived
CC
     antiinflammatory protein E-Dex (see also AAR81794), or integrin inhibitor
CC
     1, are used to raise anti-E-Dex polyclonal or monoclonal antibodies
CC
     useful as research reagents for titration of E-Dex inhibitory activity in
CC
     assays or for immunoassay of E-Dex in samples. The epitopes may have C-
CC
     or N-terminal extensions or be fused to other protein sequences e.g.
CC
     albumin. (Updated on 27-AUG-2003 to correct OS field.)
CC
XX
     Sequence 11 AA;
SQ
                          27.3%;
                                  Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                    0; Indels
  Matches
             3; Conservative
            4 TRE 6
Qy
              \perp
Db
            9 TRE 11
```

RESULT 49 AAR90709

```
AAR90709 standard; peptide; 11 AA.
ID
XX
     AAR90709;
AC
XX
DT
     21-AUG-1996 (first entry)
XX
     Residues 496-506 of Fc region of human IgE.
DE
XX
     T cell; epitope; immunogen; histamine; antibody; therapy; allergy; assay;
KW
KW
     rye grass allergy; hayfever; sensitivity; allergen; Lolium perenne; IgE;
     Lol pI; human.
ΚW
XX
     Synthetic.
OS
XX
PN
     WO9600238-A1.
XX
     04-JAN-1996.
PD
XX
                    95WO-GB001493.
     26-JUN-1995;
PF
XX
     24-JUN-1994;
                    94GB-00012714.
PR
XX
     (PEPT-) PEPTIDE THERAPEUTICS LTD.
PA
XX
PΙ
     Lewin IV, Bungy A;
XX
     WPI; 1996-068831/07.
DR
XX
     Novel T cell epitope of rye grass allergen - used in an immunogen for
PT
     determination of sensitivity to rye grass pollen and in the treatment of
PT
     hay-fever.
PT
XX
PS
     Disclosure; Page 5; 50pp; English.
XX
CC
     This sequence represents residues 496-506 of the human IgE Fc region, and
CC
     covers the Cepsilon4 domain. This sequence can be used as a histamine
     releasing peptide in an immunogen of the invention. This sequence
CC
     comprises a cationic N-terminal head and a hydrophobic C-terminal tail,
CC
     together with a residue capable of eliciting antibodies against a T cell
CC
     motif (see AAR90704) containing peptide (see AAR90705-R90707). The
CC
     peptides and immunogens are used in a medicament for the treatment or
CC
     prophylaxis of allergies, particularly for rye grass allergy or hayfever.
CC
     They may also be used in assays to determine sensitivity to rye grass
CC
     allergens, for determination of hayfever sufferance, or to assay specific
CC
     T cell populations sensitive to rye grass allergens such as the Lolium
CC
CC
     perenne protein Lol pI
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                              0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
  Matches
           3; Conservative
            2 RKT 4
Qу
              111
```

Db

1 RKT 3

```
RESULT 50
AAW02115
     AAW02115 standard; peptide; 11 AA.
XX
AC
     AAW02115;
XX
     29-OCT-1996 (first entry)
DT
XX
     Biotinylated pY peptide ligand for p85 SH2 domain.
DE
XX
     Bone resorption disease; osteoporosis; src SH2 domain antagonist;
ΚW
     src homology 2 domain; p85.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
     Modified-site
FT
                     /label= OTHER
FT
                     /note= "phosphotyrosine"
FT
XX
     EP727211-A1.
PN
XX
     21-AUG-1996.
PD
XX
                    96EP-00200270.
PF
     07-FEB-1996;
XX
                    95US-00386381.
     10-FEB-1995;
PR
     07-MAR-1995;
                    95US-00400220.
PR
                    95US-00497357.
PR
     30-JUN-1995;
     11-OCT-1995;
                    95US-00541080.
PR
     29-DEC-1995;
                    95US-00580868.
PR
XX
PΑ
     (SMIK ) SMITHKLINE BEECHAM CORP.
XX
ΡI
     Dunnington DJ;
XX
DR
     WPI; 1996-372674/38.
XX
     Use of selective src SH2 domain ligand - to prepare medicament for
PT
PT
     treating bone resorption disease.
XX
     Example 11; Page 21; 47pp; English.
PS
XX
     Biotinylated pY peptides (AAW02114-18) contg. an aminocaproic acid linker
CC
     are used in binding assays to determine the ability of cpds. to
CC
     selectively inhibit the binding of the SH2 domain of a human protein to
CC
     its respective pY peptide; the peptide given in AAW02115 was used for p85
CC
     SH2. The SH2 domains were expressed as fusion proteins (see also AAW02119
CC
     -21 and AAW02124-27) in E. coli for use in the assays. Cpds. that
CC
     selectively inhibit the human src SH2 domain can be used to treat bone
CC
     resportion diseases such as osteoporosis
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
```

```
0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
 Matches
            9 SKD 11
QУ
              8 SKD 10
RESULT 51
AAW09653
     AAW09653 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW09653;
XX
DT
     25-MAR-2003
                  (revised)
     20-MAY-1997
                  (first entry)
DT
XX
     Labelled peptide substrate used in enzyme activity assay.
DΕ
XX
     Enzyme activity; assay; measurement; label; rhodamine; dansyl;
KW
     non-radioactive; electrophoretic separation; protein kinase; protease;
KW
KW
     phosphatase.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
                     /note= "labelled with rhodamine B detection tag"
FT
XX
PN
     US5580747-A.
XX
     03-DEC-1996.
PD
XX
PF
     21-JAN-1994;
                    94US-00185448.
XX
PR
     12-NOV-1991;
                    91US-00791928.
XX
PΑ
     (PROM-) PROMEGA CORP.
XX
PI
     White DH,
                Shultz JW;
XX
     WPI; 1997-033568/03.
DR
XX
     Non:radioactive assay for measuring enzyme activity - involving
PΤ
     electrophoretic sepn. of labelled cleavage prod. from labelled peptide
PT
PΤ
     substrate.
XX
     Claim 5; Col 39-40; 35pp; English.
PS
XX
     AAW09653 is a peptide substrate used in a non-radioactive assay for
CC
     measuring enzyme activity. The assay comprises incubating the enzyme with
CC
     the labelled peptide substrate to form a labelled peptide product;
CC
     separating the product from the substrate by agarose gel electrophoresis
CC
     and measuring the amount of product by detecting the label by
CC
     fluorescence or chemiluminescence. The assay can be performed rapidly and
CC
     with great sensitivity. This peptide is especially for determining
CC
     protein kinase C activity, e.g. to study its function in metabolism or to
CC
     screen for potential inhibitors. (Updated on 25-MAR-2003 to correct PF
CC
```

```
CC
     field.)
XX
SQ
     Sequence 11 AA;
                                                    Length 11;
                          27.3%; Score 3; DB 2;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             3; Conservative
                                0; Mismatches
  Matches
            7 RKS 9
Qу
              +111
            5 RKS 7
Db
RESULT 52
AAW25587
     AAW25587 standard; peptide; 11 AA.
ID
XX
     AAW25587;
AC
XX
DT
     25-MAR-2003
                  (revised)
     10-NOV-1997
                 (first entry)
DT
XX
     Synthetic hepatitis peptide #29.
DE
XX
     Functional surrogate; analyte; affinity receptor; immunoreactive group;
KW
     mimic; homogenous immunoassay; detection; diagnostic analyte; Chlamydia;
KW
     cardiac marker; tumour marker; allergen; hormone; fertility; myoglobin;
KW
     pregnancy; infectious disease; ferritin; myosin light chain; troponin;
KW
     follicle stimulating hormone; human; growth hormone; immunoglobulin E;
KW
     prolactin; parathyroid hormone; placental lactogen; hepatitis antigen;
KW
     antibody; chorionic gonadotropin; luteinising hormone; cytomegalovirus;
KW
     Streptococcus; rubella; toxoplasma; DK-MB; prostate-specific antigen;
KW
     carcinoembryonic antigen; alpha-fetoprotein; herpes virus; CA125.
KW
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
FT
     Modified-site
FT
                     /label= Acp
                     /note= "the amino group of this residue is attached to
FT
                     the thiol group of Cysll via a -CO-CH2- bridge"
FT
FT
     Modified-site
                     /note= "the epsilon amine group is biotinylated"
FT
     Modified-site
FT
                     /note= "the thiol group of this residue is attached to
FT
                     the amino group Acpl via a -CO-CH2- bridge, amidated C
FT
                     terminal"
FT
XX
PN
     WO9641172-A1.
XX
PD
     19-DEC-1996.
XX
                    96WO-US010498.
ΡF
     07-JUN-1996;
XX
PR
     07-JUN-1995;
                    95US-00476375.
XX
PΑ
     (CYTO-) CYTOGEN CORP.
```

```
XX
     Lee-Owen FV, Carter JM;
PΙ
XX
     WPI; 1997-077284/07.
DR
XX
     Labelled functional surrogate of an analyte - useful as competitor
PT
     molecule in affinity assays, esp. for detecting large macromolecules such
PT
PT
     as ferritin.
XX
PS
     Claim 51; Page 28; 156pp; English.
XX
     This sequence represents a synthetic hepatitis peptide which was used as
CC
     a functional surrogate in the conjugate of the invention. The novel
CC
     labelled conjugate comprises at least one label attached to a functional
CC
CC
     surrogate of an analyte of interest. The surrogate is capable of
     competing effectively with the analyte for a limiting amount of an
CC
     affinity receptor for the analyte. The conjugate exhibits an activity
CC
CC
     that is altered upon interaction with the affinity receptor and this
     activity can be measured and related to the amount of the analyte present
CC
     in a sample. Functional surrogates such as this have an immunoreactive
CC
     group that allows the surrogate to compete effectively and with the
CC
     analyte for a limiting amount of its affinity receptor. Functional
CC
     surrogates are able to mimic naturally occurring analytes. They can be
CC
     labelled for use in standard competitive affinity assays (esp. homogenous
CC
     immunoassays) for detecting large macromolecules such as polypeptides,
CC
     polysaccharides, polynucleotides, glycoproteins and lipid-containing
CC
     macromolecules, as well as small haptens. Typical diagnostic analytes for
CC
     detection include cardiac or tumour markers, allergens, hormones related
CC
     to fertility-pregnancy or analytes associated with infectious disease. In
CC
     particular, the assays are useful for detecting ferritin, follicle
CC
     stimulating hormone, human growth hormone, immunoglobulin E, prolactin,
CC
     parathyroid hormone, human placental lactogen, hepatitis antigens or
CC
     antibodies against them, human chorionic gonadotropin, human luteinising
CC
     hormone, cytomegalovirus, Chlamydia, Streptococcus a, rubella,
CC
     toxoplasma, herpes virus, DK-MB, myoglobin, myosin light chain, troponin,
CC
     carcinoembryonic antigen, alpha-fetoprotein, prostate-specific antigen
CC
     and CA125 (a tumour marker). (Updated on 25-MAR-2003 to correct PI
CC
CC
     field.)
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
            3 KTR 5
Qу
              \perp
            2 KTR 4
Db
RESULT 53
AAW25586
     AAW25586 standard; peptide; 11 AA.
ID
XX
AC
     AAW25586;
XX
DT
     25-MAR-2003 (revised)
```

10-NOV-1997 (first entry) DTXX Synthetic hepatitis peptide #28. DE XX Functional surrogate; analyte; affinity receptor; immunoreactive group; KW mimic; homogenous immunoassay; detection; diagnostic analyte; Chlamydia; KW cardiac marker; tumour marker; allergen; hormone; fertility; myoglobin; KW pregnancy; infectious disease; ferritin; myosin light chain; troponin; KW follicle stimulating hormone; human; growth hormone; immunoglobulin E; KW prolactin; parathyroid hormone; placental lactogen; hepatitis antigen; KW antibody; chorionic gonadotropin; luteinising hormone; cytomegalovirus; KW Streptococcus; rubella; toxoplasma; DK-MB; prostate-specific antigen; KW carcinoembryonic antigen; alpha-fetoprotein; herpes virus; CA125. ΚW XX Synthetic. OS XX Location/Qualifiers FHKey Modified-site FT1 /label= Acp FT/note= "the amino group of this residue is attached to FTthe thiol group of Cys11 via a -CO-CH2- bridge" FTFTModified-site /note= "the thiol group of this residue is attached to FTthe amino group Acpl via a -CO-CH2- bridge, amidated C FTterminal" FTXXWO9641172-A1. PNXX 19-DEC-1996. PDXX 96WO-US010498. PF07-JUN-1996; XX PR 07-JUN-1995; 95US-00476375. XX PΑ (CYTO-) CYTOGEN CORP. XX PILee-Owen FV, Carter JM; XX DR WPI; 1997-077284/07. XX Labelled functional surrogate of an analyte - useful as competitor PTmolecule in affinity assays, esp. for detecting large macromolecules such PTPT as ferritin. XX Claim 51; Page 28; 156pp; English. PS XX This sequence represents a synthetic hepatitis peptide which was used as CC a functional surrogate in the conjugate of the invention. The novel CClabelled conjugate comprises at least one label attached to a functional CC surrogate of an analyte of interest. The surrogate is capable of CC competing effectively with the analyte for a limiting amount of an CC affinity receptor for the analyte. The conjugate exhibits an activity CC that is altered upon interaction with the affinity receptor and this CC activity can be measured and related to the amount of the analyte present CC in a sample. Functional surrogates such as this have an immunoreactive CC group that allows the surrogate to compete effectively and with the CC analyte for a limiting amount of its affinity receptor. Functional CC

```
surrogates are able to mimic naturally occurring analytes. They can be
CC.
     labelled for use in standard competitive affinity assays (esp. homogenous
CC
     immunoassays) for detecting large macromolecules such as polypeptides,
CC
    polysaccharides, polynucleotides, glycoproteins and lipid-containing
CC
    macromolecules, as well as small haptens. Typical diagnostic analytes for
CC
    detection include cardiac or tumour markers, allergens, hormones related
CC
     to fertility-pregnancy or analytes associated with infectious disease. In
CC
    particular, the assays are useful for detecting ferritin, follicle
CC
     stimulating hormone, human growth hormone, immunoglobulin E, prolactin,
CC
    parathyroid hormone, human placental lactogen, hepatitis antigens or
CC
     antibodies against them, human chorionic gonadotropin, human luteinising
CC
     hormone, cytomegalovirus, Chlamydia, Streptococcus a, rubella,
CC
     toxoplasma, herpes virus, DK-MB, myoglobin, myosin light chain, troponin,
CC
     carcinoembryonic antigen, alpha-fetoprotein, prostate-specific antigen
CC
     and CA125 (a tumour marker). (Updated on 25-MAR-2003 to correct PI
CC
CC
     field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3; Conservative
  Matches
            3 KTR 5
Qу
              \perp
            2 KTR 4
Db
RESULT 54
AAW15675
     AAW15675 standard; peptide; 11 AA.
XX
AC
     AAW15675;
XX
DT
     25-MAR-2003 (revised)
     11-JUN-1997
                 (first entry)
DT
XX
DE
     Platelet aggregation inhibitor #100.
XX
     Platelet aggregation inhibitor; RGD analogue; cyclic peptide; fibrinogen;
KW
     hydrophobically enhanced analogue; blood platelet; endothelial surface;
KW
     blood vessel; serum protein; GP IIb/IIIa glycoprotein complex; integrin;
KW
     plasma membrane; thrombosis; cell adhesion receptor; fibronectin;
KW
     vitronectin receptor; vascular graft occlusion; therapy.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Kev
FT
     Modified-site
                     /note= "forms peptide bond to create cyclic peptide"
FT
FT
     Modified-site
                     /label= Orn
FT
XX
     US5612311-A.
PN
XX
PD
     18-MAR-1997.
XX
```

```
22-DEC-1994;
                    94US-00363963.
PF
XX
                    90US-00506444.
     06-APR-1990;
PR
                    91US-00681119.
     05-APR-1991;
PR
PR
     14-APR-1993;
                    93US-00050736.
                    94US-00204817.
PR
     02-MAR-1994;
XX
     (LJOL-) LA JOLLA CANCER RES FOUND.
PA
XX
     Craig WS, Lukeman DS, Cheng S, Tschopp JF, Pierschbacher MD;
PΙ
XX
     WPI; 1997-192139/17.
DR
XX
     RGD-contg. peptide(s) that inhibit platelet aggregation - useful for
PT
PΤ
     treating thrombosis.
XX
     Example 5; Col 79; 50pp; English.
PS
XX
     AAW15576-W15695 represent platelet aggregation inhibitors. All of these
CC
     sequences are hydrophobically enhanced RGD peptide analogues. The
CC
     interaction of blood platelets with the endothelial surface of injured
CC
     blood vessels and with other platelets (platelet aggregation) is a major
CC
     factor in the course of development of thrombi. Thrombosis is a serious
CC
     condition which can cause tissue damage and eventually death (if
CC
     untreated). Platelet aggregation is dependent upon the binding of
CC
     fibrinogen and other serum proteins to the GP IIb/IIIa glycoprotein
CC
     complex on the platelet plasma membrane. GP IIb/IIIa is a member of the
CC
     integrin family of cell adhesion receptors, which are known to recognise
CC
     a RGD tripeptide recognition sequence. The peptides inhibit platelet
CC
     aggregation without prolonging bleeding time. These sequences have high
CC
     affinity for the IIb/IIIa receptor and low affinity for the fibronectin
CC
     and vitronectin receptors. The peptides are used as platelet aggregation
CC
     inhibitors for treating thrombosis and vascular graft occlusion. (Updated
CC
CC
     on 25-MAR-2003 to correct PF field.)
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                              0;
  Matches
             3; Conservative
Qу
            5 RER 7
              \mathbf{I}
Db
            9 RER 11
RESULT 55
AAW22738
ID
     AAW22738 standard; peptide; 11 AA.
XX
AC
     AAW22738;
XX
DT
     12-MAR-1998
                 (first entry)
XX
DE
     Linking sequence from metastasis inhibitor.
XX
     Chimeric; human; urinary trypsin; inhibitor; HI-8; cancer; metastasis;
KW
```

```
KW
XX
OS
     Synthetic.
XX
     WO9725422-A1.
PN
XX
     17-JUL-1997.
PD
XX
                    97WO-JP000008.
     06-JAN-1997;
PF
XX
                    96JP-00001059.
PR
     08-JAN-1996;
XX
     (NISP ) NISSIN FOOD PROD CO LTD.
PΑ
XX
     Kobayashi H, Terao T, Sugino D, Okushima M;
PΙ
XX
     WPI; 1997-372862/34.
DR
XX
     Chimeric protein which inhibits development of metastases in cancer -
PT
     contains urinary trypsin inhibitor carboxy-terminal domain linked to
PT
РΤ
     urokinase G-domain.
XX
     Claim 2; Page 68; 97pp; Japanese.
PS
XX
     A novel chimeric protein contains the carboxy-terminal domain of human
CC
     urinary trypsin inhibitor (HI-8), which inhibits cancer cell metastasis,
CC
     linked to a peptide containing the G-domain of urokinase (AAW22742),
CC
     which specifically binds the excess urokinase receptor expressed in
CC
     cancer cells. The chimeric protein has the amino-terminal AAW22734, the
CC
     carboxy-terminal AAW22735 and a linking sequence selected from AAW22736-
CC
     39 or partial sequences derived from these, specifically AAW38130-63. The
CC
     chimeric protein may also have additional amino-terminal sequences
CC
     selected from AAW22740 or 9 partial sequences derived from this, and/or
CC
     additional carboxy-terminal sequences selected from AAW22743 or 10
CC
     partial sequences derived from this. The chimeric protein can be used to
CC
     prevent metastasis in, e.g. cancer of the lung, kidney, pancreas,
CC
     stomach, colon, rectum, ovary, uterus, brain, skin, muscle, breast or
CC
CC
     prostate, and in leukaemia or lymphoma
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                   0; Indels
            3; Conservative
  Matches
            8 KSK 10
Qу
              111
            4 KSK 6
Db
RESULT 56
AAW38140
     AAW38140 standard; peptide; 11 AA.
XX
AC
     AAW38140;
XX
DT
     12-MAR-1998 (first entry)
```

G-domain; urokinase; prevention; leukaemia; lymphoma.

```
XX
    Linking sequence from metastasis inhibitor.
DE
XX
     Chimeric; human; urinary trypsin; inhibitor; HI-8; cancer; metastasis;
KW
     G-domain; urokinase; prevention; leukaemia; lymphoma.
KW
XX
    Synthetic.
OS
XX
    WO9725422-A1.
PΝ
XX
     17-JUL-1997.
PD
XX
PF
     06-JAN-1997;
                    97WO-JP000008.
XX
                    96JP-00001059.
     08-JAN-1996;
PR
XX
PA
     (NISP ) NISSIN FOOD PROD CO LTD.
XX
     Kobayashi H, Terao T, Sugino D, Okushima M;
PI
XX
DR
    WPI; 1997-372862/34.
XX
     Chimeric protein which inhibits development of metastases in cancer -
PT
     contains urinary trypsin inhibitor carboxy-terminal domain linked to
PT
PT
     urokinase G-domain.
XX
    Claim 3; Page 70; 97pp; Japanese.
PS
XX
     A novel chimeric protein contains the carboxy-terminal domain of human
CC
     urinary trypsin inhibitor (HI-8), which inhibits cancer cell metastasis,
CC
     linked to a peptide containing the G-domain of urokinase (AAW22742),
CC
     which specifically binds the excess urokinase receptor expressed in
CC
     cancer cells. The chimeric protein has the amino-terminal AAW22734, the
CC
     carboxy-terminal AAW22735 and a linking sequence selected from AAW22736-
CC
     39 or partial sequences derived from these, specifically AAW38130-63. The
CC
     chimeric protein may also have additional amino-terminal sequences
CC
     selected from AAW22740 or 9 partial sequences derived from this, and/or
CC
     additional carboxy-terminal sequences selected from AAW22743 or 10
CC
     partial sequences derived from this. The chimeric protein can be used to
CC
     prevent metastasis in, e.g. cancer of the lung, kidney, pancreas,
CC
     stomach, colon, rectum, ovary, uterus, brain, skin, muscle, breast or
CC
     prostate, and in leukaemia or lymphoma
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                      Gaps
                                                                              0;
  Matches
             3; Conservative
                                 0; Mismatches
                                                    0; Indels
Qу
            8 KSK 10
              111
Db
            4 KSK 6
```

RESULT 57 AAW39576

ID AAW39576 standard; peptide; 11 AA.

```
XX
     AAW39576;
AC
XX
     11-JUN-1998 (first entry)
DT
XX
     Human Influenza M derived peptide (residues 41-51).
DΕ
XX
     T cell epitope; immune response; human leukocyte antigen; HLA Class I;
KW
     vaccine; immunogenic; major histocompatablilty complex; MHC; B cell;
KW
     disease; anti-tumour; anti-viral.
KW
XX
os
     Influenza virus.
XX
     WO9741440-A1.
PN
XX
PD
     06-NOV-1997.
XX
                    97WO-NL000229.
     28-APR-1997;
PF
XX
                    96EP-00201145.
     26-APR-1996;
PR
     23-DEC-1996;
                    96EP-00203670.
PR
XX
     (UYLE-) RIJKSUNIV LEIDEN.
PΑ
     (SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
PA
XX
     Van Der Burg SH, Kast WM,
                                 Toes REM, Offringa R, Melief CJM;
PI
XX
     WPI; 1997-549891/50.
DR
XX
     Method of selecting T cell peptide epitope(s) - by measuring the
PТ
     stability of HLA class I-peptide complexes on intact B cells.
PT
XX
PS
     Example 3; Page 74; 109pp; English.
XX
     Peptides AAW39430-W39734 are used in a novel method for the selection of
CC
     immunogenic T-cell peptide epitopes present in polypeptide antigens. The
CC
     method involves the identification of peptide sequences capable of
CC
     binding to an HLA (human leukocyte antigen) class I molecule and
CC
     measuring the binding of this epitope peptide to the HLA class I peptide.
CC
     The stability of binding of the peptide and MHC (major histocompatablilty
CC
     complex) class I molecule is measured on intact human B cells carrying
CC
     the MHC molecule at their cell surfaces. The method can be used to select
CC
     peptide epitopes for generating vaccines against a disease associated
CC
     with the polypeptide, e.g. cancers or AIDS. The peptide epitopes are
CC
     especially T-cell peptide epitopes with strong anti-tumour and anti-viral
CC
     immune responses. Peptides AAW39572-W39585 are derived from the human
CC
     Influenza M virus and are used in an assay to monitor the ability to bind
CC
     to the human MHC Class I allele HLA-A2.1
CC
XX
SO
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                  0;
                                                                              0;
                                                    0; Indels
                                                                      Gaps
  Matches
             3: Conservative
                                  0; Mismatches
```

111

```
RESULT 58
AAW14038
     AAW14038 standard; peptide; 11 AA.
ID
XX
AC
     AAW14038;
XX
     27-MAY-1997 (first entry)
\operatorname{DT}
XX
     Anti-parasitic peptide #22.
DE
XX
     Anti-parasitic agent; cytotoxic; parasite.
KW
XX
     Synthetic.
OS
XX
     JP09040578-A.
PN
XX
     10-FEB-1997.
PD
XX
                    95JP-00195218.
     31-JUL-1995;
PF
XX
                    95JP-00195218.
PR
     31-JUL-1995;
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PA
XX
     WPI; 1997-175617/16.
DR
XX
     Anti-parasite agent - shows no cytotoxicity to normal cells.
PT
XX
     Claim 1; Page 10; 11pp; Japanese.
PS
XX
     AAW14017-W14044 represent peptide sequence used in the anti-parasitic
CC
     agent of the invention. The anti-parasitic agent contains one of these
CC
     sequences, or a mixture of at least two of them (or derivatives, or salts
CC
     of these sequences) as the active component. The agent is an anti-
CC
     parasitic and has low side effects and shows no cytotoxicity to normal
CC
     cells. The agent is also stable in aqueous solution
CC
XX
SQ:
     Sequence 11 AA;
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
             3; Conservative 0; Mismatches
                                                    0; Indels
             3 KTR 5
QУ
               1 KTR 3
RESULT 59
AAW16616
     AAW16616 standard; peptide; 11 AA.
ΙD
XX
AC
     AAW16616;
XX
```

```
19-DEC-1997 (first entry)
DT
XX
     Phosphoinositide-3 kinase pl10alpha conserved motif.
DΕ
XX
     Phosphoinositide 3 kinase; PI-3 kinase; wortmannin.
KW
XX
OS
     Synthetic.
XX
     WO9715658-A1.
PN
XX
     01-MAY-1997.
PD
XX
                    96WO-GB002614.
     28-OCT-1996;
PF
XX
                    95GB-00021987.
PR
     26-OCT-1995;
XX
     (LUDW-) LUDWIG INST CANCER RES.
PA
XX
                                      Panayotou G, Vanhaesebroeck B;
     Wymann MP, Bulgarelli-Vela G,
PΙ
     Zvelebil MJ, Waterfield MD;
PI
XX
     WPI; 1997-259013/23.
DR
XX
     Phospho:inositide 3 kinase wortmannin interaction site - to identify and
PT
     design ligands which regulate phospho: inositide 3 kinase activity.
PT
XX
     Disclosure; Page 32; 71pp; English.
PS
XX
     A novel interaction site has been discovered on phosphoinositide 3 (PI-3)
CC
     kinase, or a homologue or analogue. The interaction site modulates the
CC
     activity of PI-3 kinase when exposed to a modulator, and has a molecular
CC
     shape adapted to interact with at least a part of the modulator so as to
CC
     modulate PI-3 kinase activity. The present sequence represents a
CC
     conserved motif (resembling K(X) nKXKK where n=3-7) in PI-3 kinase
CC
     pllOalpha, that was found to bind phosphatidylinositol in gelsolin and so
CC
     might constitute a binding site for the 4,5-phosphates of the lipid. The
CC
     activity of PI-3 kinase can be regulated by altering, e.g. substituting a
CC
     different amino acid or deleting any of the features of the site. The
CC
     site may be used to identify or design novel ligands which regulate the
CC
     activity of PI-3 kinase by generating a molecular model of the wortmannin
CC
     inhibition site of PI-3 kinase, identifying or designing ligands which
CC
     interact with at least part of the site and optionally contacting the
CC
     putative ligand with PI-3 kinase and monitoring PI-3 kinase activity
CC
XX
     Sequence 11 AA;
SQ
                           27.3%; Score 3; DB 2; Length 11;
  Query Match
                           100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                                0;
                                                     0; Indels
                                                                   0; Gaps
             3; Conservative
                                 0; Mismatches
  Matches
             5 RER 7
Qу
               \parallel \parallel \parallel \parallel
             9 RER 11
Db
```

RESULT 60 AAW10140

```
AAW10140 standard; peptide; 11 AA.
ID
XX
AC
     AAW10140;
XX
     25-MAR-2003
                  (revised)
DT
     02-OCT-1997 (first entry)
DT
XX
     Hepatitis C virus peptide antigen IIA.
DΕ
XX
     Antibody; HCV; immunoassay; vaccine; mimic.
KW
XX
     Synthetic.
OS
XX
                     Location/Qualifiers
FH
     Key
     Modified-site
FT
                     /note= "H or a linker arm by which the peptide can be
FT
                     attached to a carrier or solid phase comprising at least
FT
                     one amino acid and as many as 60, most frequently 1-20
FT
                     amino acids, such as Cys, Lys, Tyr, Glu or Asp, or
FT
                     chemical groups such as biotin or thioglycolic acid; can
FT
                     be modified by acetylation"
FT
FT
     Modified-site
                     /note= "A bond or a linker arm by which the peptide can
FT
                     be attached to a carrier or solid phase comprising at
FT
                     least one amino acid and as many as 60 amino acids, most
FT
                     frequently 1-10 amino acids, such as Cys, Lys, Tyr, Asp,
\mathbf{F}\mathbf{T}
                     or chemical groups such as biotin or thioglycolic acid;
FT
                     and attached on to that is NH2, OH or a linkage involving
FT
                     either of these two groups"
FT
XX
PN
     EP754704-A2.
XX
РĎ
     22-JAN-1997.
XX
                    96EP-00201157.
     14-DEC-1990;
PF
XX
     14-DEC-1990;
                     90EP-00124241.
PR
XX
     (INNO-) INNOGENETICS NV.
PA
XX
     Deleys RJ, Pollet D, Maertens G, Van Heuverswyn H;
PI
XX
     WPI; 1997-089256/09.
DR
XX
     Hepatitis C virus peptide mimics - for use in immunoassays, vaccines,
PT
PT
     etc.
XX
     Claim 2; Page 38; 65pp; English.
PS
XX
     The present sequence represents a novel synthetic Hepatitis C virus (HCV)
CC
     antigen IIA for the detection of antibodies. The peptide contains
CC
     modifications at the N- and C-terminal (see features table) with the
CC
     condition that if the modification represents an amino acid(s), that they
CC
     are different from any naturally occurring HCV flanking regions. The
CC
     peptide represents an HCV peptide mimic and may be used as an immunoassay
CC
     reagent for detecting antibodies to HCV; for incorporation into vaccines
CC
     against HCV; and for raising antibodies against HCV. (Updated on 25-MAR-
CC
```

```
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                                              0;
                                                                  0; Gaps
                                                   0; Indels
            2 RKT 4
QУ
              \perp
            2 RKT 4
Db
RESULT 61
AAW26152
     AAW26152 standard; peptide; 11 AA.
XX
AC
     AAW26152;
XX
     24-NOV-1997 (first entry)
DT
XX
     Lactoferrin derivative #21.
DΕ
XX
     Lactoferrin; lactoferrin hydrolysate; derivative; neovascular disease;
KW
     ophthalmic disease; chronic rheumatism; abnormal capillary vessel;
KW
     psoriasis; therapy.
KW
XX
OS
     Synthetic.
XX
     JP09194388-A.
PN
XX
     29-JUL-1997.
PD
XX
                    96JP-00008722.
     22-JAN-1996;
PF
XX
                    96JP-00008722.
PR
     22-JAN-1996;
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PΑ
XX
     WPI; 1997-431405/40.
DR
XX
     Peptide derived from lactoferrin or lactoferrin hydrolysate - for
PT
     treatment of neovascular diseases.
PT
XX
     Claim 3; Page 9; 11pp; Japanese.
PS
XX
     AAW26132-W26157 represent the peptide derivatives of the invention. These
CC
     sequences are derivatives of lactoferrin or lactoferrin hydrolysate. The
CC
     derivatives are used in an agent for the treatment of neovascular
CC
     diseases. The diseases that the peptides can be used to treat include
CC
     ophthalmic diseases, chronic rheumatism, psoriasis and abnormal capillary
CC
CC
     vessels
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
```

2003 to correct PF field.)

CC

```
0; Gaps
                                                                               0;
                                  0: Mismatches
                                                    0; Indels
            3: Conservative
 Matches
            3 KTR 5
Qy
              \mathbf{H}
            1 KTR 3
Db
RESULT 62
AAW70312
     AAW70312 standard; peptide; 11 AA.
XX
     AAW70312;
AC
XX
     06-NOV-1998
                 (first entry)
DT
XX
     Thrombus formation inhibitory peptide derivative 18.
DE
XX
     Polyethyleneglycol; PEG; thrombus; side effect; inhibitory peptide.
KW
XX
OS
     Synthetic.
XX
                     Location/Qualifiers
FH
     Key
FT
     Modified-site
                     /note= "attached by an acyl or polyethyleneglycol (PEG)
FT
                     group"
FT
                     11
FT
     Modified-site
                     /note= "attached by an amino, acyl, polyethyleneglycol
FT
                      (PEG) or beta-alanine-PEG group"
FT
XX
     JP10182479-A.
ΡN
XX
     07-JUL-1998.
PD
XX
                    96JP-00343590.
     24-DEC-1996;
PF
XX
                     96JP-00343590.
PR
     24-DEC-1996;
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PA
XX
     WPI; 1998-433772/37.
DR
XX
     Drug comprises peptide derivative used to inhibit thrombus formation -
PT
     optionally combined with and/or adsorbed onto carrier, has low side
PT
PT
     effects.
XX
     Disclosure; Page 12; 14pp; Japanese.
PS
XX
     The invention provides a drug composition comprising of a peptide
CC
     derivative of the formula (A) R1X, (B) XR2 or (C) R1XR2; where R1 = acyl
CC
     or polyethyleneglycol (PEG); R2 = amino, acyl, PEG or beta-alanine-PEG; X
CC
     = peptide sequence of 3-47 D or L amino acids such as the present
CC
     sequence. The drug is claimed to inhibit thrombus formation with low side
CC
CC
     effect
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
```

```
Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                                                              0;
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                  0;
                                                                    Gaps
 Matches
            3 KTR 5
Qy
              111
            1 KTR 3
Db
RESULT 63
AAW69270
    AAW69270 standard; peptide; 11 AA.
XX
AC
    AAW69270;
XX
    29-OCT-1998 (first entry)
DT
XX
    Haemagglutinin heavy chain (HA1) fragment.
DE
XX
KW
    Acryloylated peptide polymer; immune response; peptide epitope;
     synthetic vaccine; enzymatically cleavable site.
KW
XX
     Influenza virus.
OS
XX
                     Location/Qualifiers
FH
     Key
FT
     Misc-difference 1
FT
                     /note= "linked to acryloylated peptide polymer"
XX
ΡŃ
    WO9834968-A1.
XX
PD
     13-AUG-1998.
XX
                    98WO-AU000076.
PF
     10-FEB-1998;
XX
PR
     11-FEB-1997;
                    97AU-00005071.
PR
     03-OCT-1997;
                    97CA-02217321.
XX
     (COUN-) COUNCIL QUEENSLAND INST MEDICAL RES.
PA
     (CSIR ) COMMONWEALTH SCI & IND RES ORG.
PΑ
     (UYME ) UNIV MELBOURNE.
PA
     (HALL-) HALL INST MEDICAL RES WALTER & ELIZA.
PA
     (CSLC-) CSL LTD.
PΑ
XX
     Jackson DC, Obrien-Simpson NM,
                                                 Zeng W, Ede NJ;
PI
                                      Brown LE,
PΙ
     Brandt ER, Good MF;
XX
     WPI; 1998-447177/38.
DR
XX
     Acryloylated peptide polymers - useful for synthetic vaccine technology,
PT
     for raising an immune response to peptide epitope and as diagnostic tool.
PT
XX
PS
     Example 1; Page 20; 77pp; English.
XX
     This sequence represents a fragment of the heavy chain (HA1) of the
CC
     haemagglutinin of influenza virus. This sequence was used to test the
CC
     acryloylated peptide polymer of the invention. The peptide polymers are
CC
     used to raise an immune response to a peptide epitope (such as this
CC
     sequence), and also as diagnostic tools. Polymers (molecular wt. >600
CC
```

```
kDa.) can be prepared with virtually any number of the same or different
CC
    epitopes by a method that allows purification of the individual
CC
    determinants, avoids errors inherent in long sequential syntheses in
CC
    which protected peptide fragments are not used, thus avoiding solubility
CC
    and purification problems. Multiple copies of many different peptide
CC
    epitopes may be incorporated into a single polymeric structure to allow
CC
    utilisation of the range of T cell epitopes required for outbred
CC
    populations in conjunction with epitopes representing different
CC
    pathogenic serodemes, thus making them a significant advance in synthetic
CC
    vaccine technology
CC
XX
     Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                   0; Indels
                                                                      Gaps
                                                                              0;
                                0; Mismatches
             3; Conservative
            6 ERK 8
QУ
              111
            7 ERK 9
Db
RESULT 64
AAY20426
     AAY20426 standard; protein; 11 AA.
XX
AC
     AAY20426;
XX
     22-JUL-1999
                  (first entry)
DT
XX
     Human microtubule associated protein 2 mutant fragment 122.
DE
XX
     Human; beta-amyloid precursor protein; beta-APP; diagnosis; cancer;
KW
     frameshift mutation; age-related disease; neurodegenerative disorder;
KW
     Alzheimer's disease; Down's syndrome; myotonic dystrophy; neuronal;
KW
     Huntington's disease; multiple sclerosis; alcoholic liver disease;
KW
     diabetes mellitus type II; microtubule associated protein; Tau; Big Tau;
KW
     ubiquitin B; apolipoprotein E; MAP2; neurofilament-L; neurofilament-M;
KW
     neurofilament-F; presenilin I; presenilin II; cellular tumour antigen;
KW
     glial fibrillary acidic protein; GFAP; p53; semaphorin III; HUPF-1;
KW
     bcl-2; B-cell leukemia/lymphoma 2 proto-oncogene; HMGP-C; NSP-A;
KW
     high mobility group protein-C; neuroendocrine specific protein A.
KW
XX
OS
     Synthetic.
OS
     Homo sapiens.
XX
PN
     WO9845322-A2.
XX
     15-OCT-1998.
PD
XX
     02-APR-1998;
                    98WO-IB000705.
PF
XX
     10-APR-1997;
                    97US-0043163P.
PR
XX
     (ROYA-) ROYAL NETHERLANDS ACAD ARTS & SCI.
PA
     (UYRO-) UNIV ROTTERDAM ERASMUS.
PA
PA
      (UYUT-) RIJKSUNIV UTRECHT.
```

```
XX
     Van Leeuwen FW, Grosveld FG, Burbach JPH;
PΤ
XX
    WPI; 1998-609901/51.
DR
     N-PSDB; AAX75757.
DR
XX
    Diagnosing disease by detecting frameshift mutations in RNA or
PT
     corresponding protein mutations - used to diagnose cancer and
PT
    neurological diseases, particularly Alzheimer's disease, and also for
PT
     treatment and prevention with specific ribozymes or wild-type RNA.
PT
XX
     Disclosure; Fig 6; 258pp; English.
PS
XX
     This invention describes a novel method for the diagnosis of a disease
CC
     caused by, or associated with, an RNA molecule that has a frameshift
CC
    mutation. The method is used to diagnose age-related diseases, especially
CC
     cancer and a wide range of neurodegenerative disorders (e.g. Alzheimer's
CC
     disease, Down's syndrome, myotonic dystrophy, Huntington's disease,
CC
     multiple sclerosis, alcoholic liver disease, diabetes mellitus type II
CC
     and many others listed) or susceptibility to these disorders. The method
CC
     allows a definitive diagnosis of Alzheimer's disease in living patients,
CC
     at an early stage. It is based on the observation that disease may be
CC
     caused by mutations in RNA rather than DNA. The invention describes the
CC
     used of neuronal system RNA molecules, specifically proteins including
CC
     beta-amyloid precursor protein (beta-APP), the microtubule associated
CC
     proteins Tau and Big Tau, ubiquitin B, apolipoprotein E, microtubule
CC
     associated protein 2 (MAP2), neurofilament-L, neurofilament-M,
CC
     neurofilament-F, presenilin I, presenilin II, glial fibrillary acidic
CC
     protein (GFAP), the cellular tumour antigen p53, B-cell leukemia/lymphoma
CC
     2 (bcl-2) proto-oncogene, semaphorin III, HUPF-1, high mobility group
CC
CC
     protein-C (HMGP-C) and neuroendocrine specific protein A
XX
SQ
     Sequence 11 AA;
  Query Match
                          27.3%; Score 3; DB 2; Length 11;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                   0; Indels
             3; Conservative
            7 RKS 9
Qу
              III
            7 RKS 9
Db
RESULT 65
AAW78553
     AAW78553 standard; peptide; 11 AA.
XX
AC
     AAW78553;
XX
DT
     04-NOV-1998 (first entry)
XX
     SH2 domain binding inhibiting peptide SEQ ID NO:33.
DE
XX
     SH2 domain; binding; inhibition; interaction; site specific;
KW
     signal transduction; protein tyrosine kinase; phosphotyrosine;
KW
     growth factor receptor; oncogene; cellular growth; cell proliferation;
KW
     metabolic control; diabetes; PTK; proto-oncogene; insulin receptor.
KW
```

```
XX
     Synthetic.
OS
XX
PN
     US5801149-A.
XX
     01-SEP-1998.
PD
XX
                    95US-00408604.
PF
     21-MAR-1995;
XX
                    91US-00722359.
     19-JUN-1991;
PR
                    92US-00959949.
     09-OCT-1992;
PR
                    93US-00134558.
     08-OCT-1993;
PR
XX
     (JOSL-) JOSLIN DIABETES CENT INC.
PΑ
XX
     Shoelson S;
ΡI
XX
     WPI; 1998-494822/42.
DR
XX
     Inhibiting site-specific SH2 domain interaction - with peptide containing
PT
     phosphotyrosine or phosphotyrosine mimic.
PT
XX
     Disclosure; Col 43; 70pp; English.
PS
XX
     A method has been developed of inhibiting a site-specific interaction
CC
     between a first molecule having an SH2 domain and a second molecule that
CC
     interacts with the SH2 domain. The method comprises contacting the first
CC
     molecule with a 4- to 30-mer peptide containing a sequence of formula: R1
CC
     -Met-R3-Met (I), where R1 = phosphotyrosine (pTyr) or a phosphotyrosine
CC
     analogue having a hydrolysis-resistant phosphorous moiety, and R3 = any
CC
     amino acid. AAW78501 to AAW78523 represent specifically claimed examples
CC
     of the peptides described. The peptides are useful for modulating both
CC
     cellular growth to control unwanted cell proliferation in e.g selected
CC
     malignancies and for metabolic control in e.g. diabetes, by inhibiting
CC
CC
     signal transduction molecules such as protein tyrosine kinases (PTKs)
     which include growth factor receptors, proto-oncogene and oncogene
CC
     products and the insulin receptor. The peptides are also useful for
CC
     treating and for studying the enzymatic mechanisms of PTPase activity and
CC
     the metabolic and biochemical roles of PTPases. AAW78524 to AAW78702
CC
     represent other peptides given in the present invention, but which are
CC
CC
     not specifically claimed
XX
SQ
     Sequence 11 AA;
                                  Score 3; DB 2; Length 11;
  Query Match
                          27.3%;
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
  Matches
             3; Conservative
            9 SKD 11
Qγ
              111
            8 SKD 10
Db
RESULT 66
AAW78592
     AAW78592 standard; peptide; 11 AA.
XX
```

```
AAW78592;
AC
XX
     04-NOV-1998 (first entry)
DT
XX
     SH2 domain binding inhibiting peptide SEQ ID NO:79.
DE
XX
     SH2 domain; binding; inhibition; interaction; site specific;
KW
     signal transduction; protein tyrosine kinase; phosphotyrosine;
KW
     growth factor receptor; oncogene; cellular growth; cell proliferation;
KW
     metabolic control; diabetes; PTK; proto-oncogene; insulin receptor.
ΚW
XX
OS
     Synthetic.
XX
                    Location/Qualifiers
FH
FT
     Misc-difference 4
                     /note= "unspecified"
FT
XX
     US5801149-A.
PN
XX
PD
     01-SEP-1998.
XX
                    95US-00408604.
     21-MAR-1995;
PF
XX
                    91US-00722359.
PR
     19-JUN-1991;
     09-OCT-1992;
                    92US-00959949.
PR
                    93US-00134558.
PR
     08-OCT-1993;
XX
     (JOSL-) JOSLIN DIABETES CENT INC.
PA
XX
PΙ
     Shoelson S;
XX
     WPI; 1998-494822/42.
DR
XX
     Inhibiting site-specific SH2 domain interaction - with peptide containing
PT
PT
     phosphotyrosine or phosphotyrosine mimic.
XX
PS
     Disclosure; Col 61; 70pp; English.
XX
     A method has been developed of inhibiting a site-specific interaction
CC
     between a first molecule having an SH2 domain and a second molecule that
CC
     interacts with the SH2 domain. The method comprises contacting the first
CC
     molecule with a 4- to 30-mer peptide containing a sequence of formula: R1
CC
     -Met-R3-Met (I), where R1 = phosphotyrosine (pTyr) or a phosphotyrosine
CC
     analogue having a hydrolysis-resistant phosphorous moiety, and R3 = any
CC
     amino acid. AAW78501 to AAW78523 represent specifically claimed examples
CC
     of the peptides described. The peptides are useful for modulating both
CC
     cellular growth to control unwanted cell proliferation in e.g selected
CC
     malignancies and for metabolic control in e.g. diabetes, by inhibiting
CC
     signal transduction molecules such as protein tyrosine kinases (PTKs)
CC
     which include growth factor receptors, proto-oncogene and oncogene
CC
     products and the insulin receptor. The peptides are also useful for
CC
     treating and for studying the enzymatic mechanisms of PTPase activity and
CC
     the metabolic and biochemical roles of PTPases. AAW78524 to AAW78702
CC
     represent other peptides given in the present invention, but which are
CC
CC
     not specifically claimed
XX
SQ
     Sequence 11 AA;
```

```
27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                               0; Mismatches
                                                                  0; Gaps
                                                                               0;
             3; Conservative
                                                    0; Indels
  Matches
            9 SKD 11
Qу
              | | |
            8 SKD 10
Db
RESULT 67
AAW41292
     AAW41292 standard; peptide; 11 AA.
ID
XX
AC
     AAW41292;
XX
DT
     20-MAY-1998 (first entry)
XX
     Apoptosis inducer peptide.
DE
XX
KW
     Apoptosis inducer; hydrolysed lactoferrin.
XX
OS
     Synthetic.
XX
PN
     JP10045618-A.
XX
     17-FEB-1998.
PD
XX
PF
     26-JUL-1996;
                    96JP-00198196.
XX
     26-JUL-1996;
                    96JP-00198196.
PR
XX
PΑ
     (MORG ) MORINAGA MILK IND CO LTD.
XX
DR
     WPI; 1998-189187/17.
XX
     New inducer(s) of apoptosis - comprise active parts of peptide(s) derived
PT
PT
     from hydrolysis of lactoferrin.
XX
PS
     Claim 3; Page 10; 11pp; Japanese.
XX
     This sequence represents an apoptosis inducer peptide of the invention.
CC
     The apoptosis inducers comprising active parts of peptides derived from
CC
     hydrolysed lactoferrin. The peptides can be used to prepare therapeutic
CC
     compositions in the form of tablets, capsules or injections. The inducers
CC
     are safe and do not cause adverse reactions
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                0; Mismatches
                                                                   0; Gaps
                                                                               0;
           3; Conservative
                                                    0; Indels
  Matches
Qу
            3 KTR 5
              \perp \perp \perp
Db
            1 KTR 3
```

```
AAW61162
     AAW61162 standard; peptide; 11 AA.
XX
AC
     AAW61162;
XX
     26-OCT-1998 (first entry)
DΤ
XX
     IgE derived oligopeptide 1.
DΕ
XX
     IqE Fc epsilon receptor; Cysteine; disulphide bond; loop structure;
ΚW
     anti-allergy treatment; anaphylatic immune response; antibody;
KW
     Type I hypersensitivity; hay fever; asthma.
KW
XX
os
     Homo sapiens.
XX
ΡN
     WO9824808-A2.
XX
     11-JUN-1998.
PD
XX
                    97WO-US022348.
PF
     05-DEC-1997;
XX
     06-DEC-1996;
                    96US-0031991P.
PR
XX
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
PΑ
XX
     Padlan EA, Birgit AH;
_{\rm PI}
XX
     WPI; 1998-333254/29.
DR
XX
     Oligopeptide interacting with human IgE Fc epsilon receptor - useful in
PT
     anti-allergy treatment as competitors of human IgE for Fc epsilon
PT
PT
     receptor to block development of Type I hypersensitivity.
XX
PS
     Claim 1; Page 3; 45pp; English.
XX
     The sequences AAW61162-W61166 are IgE derived oligopeptides which
CC
     interact with the human IgE Fc epsilon receptor. This particular
CC
     oligopeptide is the core minimal region of IgE required for interaction
CC
     with these Fc epsilon receptors and can thus bind both high and low
CC
     affinity receptors. The peptide was derived from a region of the epsilon
CC
     heavy chain of IgE, and can therefore mimic and block human IgE binding
CC
     to the Fc receptors. This sequence was used as the core sequence in the
CC
     other oligopeptides that were derived, they varied in length and at their
CC
     N and C terminal end. The IgE protein forms a loop structure naturally,
CC
     thus the addition of Cysteine residues at both ends of this sequence
CC
     enables disulphide bonds to form which results in a loop structure. These
CC
     oligopeptides are small and are thus easy to synthesise and deliver, they
CC
     are stable, highly active in anti-allergy treatment and lastly are less
CC
     likely to trigger an adverse anaphylatic immune response. The
CC
     oligopeptides can be used as competitors of human IgE for the Fc epsilon
CC
     receptor in anti-allergy treatment. Human IgE mediates Type I
CC
     hypersensitivity, an allergic response producing symptoms such as hay
CC
     fever and asthma. Thus the oligopeptides can be used to block the
CC
     development of type I hypersensitivity
CC
```

RESULT 68

XX

```
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                                                             0;
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
            3; Conservative
            7 RKS 9
Qy
              | | |
            9 RKS 11
Db
RESULT 69
AAW53227
     AAW53227 standard; peptide; 11 AA.
ID
XX
AC
     AAW53227;
XX
     09-JUL-1998 (first entry)
DT
XX
     Lactoferrin hydrolysate peptide SEQ ID NO:27.
DE
XX
     Oral agent; cancer; metastasis; iron-free saturated lactoferrin;
KW
     hydrolysate; food; beverage.
KW
XX
OS
     Synthetic.
XX
PN
     WO9806424-A1.
XX
     19-FEB-1998.
PD
XX
                    97WO-JP002685.
PF
     01-AUG-1997;
XX
PR
     15-AUG-1996;
                    96JP-00233652.
XX
     (MORG ) MORINAGA MILK IND CO LTD.
PA
XX
     Tsuda H, Iigo M, Tomita M, Shimamura S, Takatsu Z, Sekine K;
PΙ
XX
     WPI; 1998-159285/14.
DR
XX
     Oral agent for the control of cancer metastasis - comprising iron-free
PT
     saturated lactoferrin, or its hydrolysate or peptide derivative.
PT
XX
PS
     Claim 4; Page 37; 46pp; Japanese.
XX
     The present sequence represents a specifically claimed peptide of the
CC
     present invention. The present invention describes an oral agent for the
CC
     control of cancer metastasis. The oral agent comprises one or more of
CC
     iron-free saturated lactoferrin, or a lactoferrin hydrolysate or salt, or
CC
     peptide from lactoferrin hydrolysate, or a salt or derivative of these
CC
     peptide. Also described is a foodstuff or beverage containing the agent.
CC
     The agent is used to control metastasis and lactoferrin or its
CC
     hydrolysate or salt, is administered at a dosage of 3-3200 mg/kg/day and
CC
```

the peptide is administered at a dosage of 0.2-320 mg/kg/day. The

products are simple to take, can be given for a long time, and have few

CC

CC CC

XX

side effects

```
Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                               0;
 Matches
             3: Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0;
                                                                       Gaps
            3 KTR 5
Qу
              \mathbf{I}
            1 KTR 3
Db
RESULT 70
AAY30697
     AAY30697 standard; peptide; 11 AA.
ID
XX
     AAY30697;
AC
XX
     17-NOV-1999 (first entry)
DT
XX
     Apo-B100 derived peptide showing a proteoglycan receptor mutation.
DE
XX
     Apo-B100; proteoglycan receptor mutation; atherosclerosis;
KW
     low density lipoprotein; proteoglycan; LDL; atherosclerotic lesion.
KW
XX
OS
     Synthetic.
     Homo sapiens.
OS
XX
PN
     WO9946598-A1.
XX
PD
    16-SEP-1999.
XX
                    99WO-US004805.
PF
     05-MAR-1999;
XX
PR
     10-MAR-1998;
                    98US-0077618P.
XX
     (REGC ) UNIV CALIFORNIA.
PA
XX
PΙ
     Innerarity TL, Boren JOS;
XX
     WPI; 1999-551509/46.
DR
XX
     Identifying compounds which affect binding of low density lipoprotein
PT
     with proteoglycan, used for, e.g. obtaining compounds for reducing
PΤ
PT
     atherosclerosis.
XX
PS
     Claim 17; Page 57; 70pp; English.
XX
     AAY30582-Y30700 represent apo-B100 derived peptides showing proteoglycan
CC
     receptor mutations. They were created to identify compounds which
CC
     modulate atherosclerosis. The peptides are derived from amino acids 3358
CC
     to 3367 of apoB100. The method comprises detecting compounds which affect
CC
     low density lipoprotein (LDL) binding with proteoglycan (PG). The method
CC
     can be used for identifying compounds which disrupt LDL-PG binding
CC
```

without inhibiting LDL receptor binding. Such compounds can be used to

reduce or prevent the formation of atherosclerotic lesions and prevent

express human apo-B100 can be used as an in vivo model system for the

atherosclerosis. The transgenic non-human animals and mammals which

CC

CC

CC

CC

```
study of atherosclerosis, and in vivo assay methods for identifying
CC
     compounds which modulate atherosclerosis and/or LDL-PG binding. They can
CC
     also be used to identify compounds which result in an increase in
CC
     atherosclerotic regions. Thus the assays may be used to determine whether
CC
     a particular food or drug composition tends to stimulate or inhibit the
CC
     formation of atherosclerotic lesions. The polynucleotides can also be
CC
     used in gene therapy for preventing or reducing the severity of
CC
     atherosclerosis in an animal or mammal
CC
XX
     Sequence 11 AA;
SQ
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
             3; Conservative
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                       Gaps
  Matches
            4 TRE 6
Qу
              \perp
            4 TRE 6
Db
RESULT 71
AAY33387
     AAY33387 standard; peptide; 11 AA.
ID
XX
AC
     AAY33387;
XX
                 (first entry)
DT
     01-DEC-1999
XX
     Zinc finger clone zfHHA(Y) peptide fragment.
DE
XX
     Zinc finger; DNA binding; Cys2-His2 class; 5-methylcytosine; meC;
KW
KW
     diagnostic; detection; chimera.
XX
OS
     Unidentified.
XX
ΡN
     W09947656-A2.
XX
PD
     23-SEP-1999.
XX
                    99WO-GB000816.
PF
     17-MAR-1999;
XX
                    98GB-00005576.
PR
     17-MAR-1998;
     31-MAR-1998;
                    98GB-00006895.
PR
PR
     03-APR-1998;
                    98GB-00007246.
XX
PA
     (MEDI-) MEDICAL RES COUNCIL.
XX
PI .
     Choo Y, Isalan M;
XX
DR
     WPI; 1999-562106/47.
XX
     New zinc finger polypeptides that bind DNA containing modified bases,
PT
     used as diagnostic and research reagents and for regulating gene
PT
PT
     transcription.
XX
PS
     Disclosure; Fig 3; 56pp; English.
XX
```

```
This invention describes a novel zinc finger (ZF) polypeptide (I) that
CC
     binds to a target DNA sequence (II) containing a modified base but not to
CC
     an otherwise identical sequence containing the equivalent unmodified
CC
     base. The invention also describes methods for preparing a DNA-binding
CC
     polypeptide of the Cys2-His2 ZF class, able to recognize sequences
CC
     containing a 5-methylcytosine (meC) residue. (I) are used as diagnostic
CC
     reagents (for detecting modified nucleic acids in complex mixtures,
CC
     including differentiation of single-base modifications), in research and
CC
     to produce chimeras, e.g. by fusion to a catalytic domain of a
CC
     restriction enzyme (the product can then cleave only modified DNA), or to
CC
     a DNA cleavage or activating domain (to give products that can regulate
CC
     gene transcription, by sequence-specific cleavage or activation,
CC
     dependent on presence of a modified base). (I) recognize modified bases
CC
     in preference to unmodified ones, in a sequence-dependent manner, so have
CC
     extremely high specificity. This sequence represents a zinc finger clone
CC
     peptide fragment described in the method of the invention
CC
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.8e+03;
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
             3; Conservative
                                 0; Mismatches
  Matches
            3 KTR 5
Qy
              111
Db
            1 KTR 3
RESULT 72
AAY03092
     AAY03092 standard; peptide; 11 AA.
ID
XX
AC
     AAY03092;
XX
DT
     08-JUN-1999 (first entry)
XX
DE
     New nociceptin analogue #74 from WO9903880.
XX
     Nociceptin; vasomotor disorder; menopausal hot flush; opioid antagonist;
KW
     hyperalgesia; neuroendocrine secretion; stress; locomotor activity;
KW
     anxiety; instinctive behaviour; learning disorder; memory disorder;
KW
KW
     attention disorder; sensory perception disorder.
XX
OS
     Synthetic.
XX
FH
     Κeγ
                     Location/Qualifiers
FT
     Modified-site
                     /note= "the side chains of residues 6 and 10 are
FT
                     condensed via a Gly residue to form a lactam bridge
FT
FT
                     between these two positions"
FT
     Modified-site
                     10
FT
                     /label= Orn
                     /note= "ornithine residue"
FT
FT
     Modified-site
FT
                     /note= "C-terminal amide"
XX
PN
     WO9903880-A1.
```

```
XX
     28-JAN-1999.
PD
XX
     13-JUL-1998;
                    98WO-DK000326.
PF
XX
PR
     15-JUL-1997;
                    97DK-00000867.
     17-JUL-1997;
                    97US-0052862P.
PR
XX
     (NOVO ) NOVO-NORDISK AS.
PΑ
XX
                  Madsen K, Olsen UB,
                                         Johansen NL, Scheideler M;
PΙ
     Thogersen H,
XX
DR
     WPI; 1999-132156/11.
XX
     New derivatives of nociceptin for treating vasomotor disorders -
PT
     specifically hot flushes in menopausal women.
PT
XX
PS
     Claim 70; Page 61; 69pp; English.
XX
     This sequence is a specifically claimed example of new nociceptin
CC
     analogue peptides which have the generic formula (X)n-A1-A2-A3-A4-A5- A6-
CC
     A7-A8-A9-A10-A11-A12-A13-A14-A15-A16-A17-(Y)m-A18, in which: A1 is
CC
     absent, a small or lipophilic amino acid, or phenylpropionic acid,
CC
     optionally acylated; A2 = aromatic, lipophilic or small amino acid,
CC
     optionally acylated if A1 is absent; A3, A6 and A7 = small, lipophilic or
CC
     polar amino acids; A2-A3 may alternatively be 5-amino-pentanoic, N-
CC
     methylanthranilic, 4-aminocyclohexane carboxylic or 3-aminomethyl-
CC
     benzoic acid; A4 = small, polar or aromatic amino acid; alternatively A3-
CC
     A4 = N-methylanthranilic acid; A5, A9, A10 and A11 = lipophilic or polar
CC
CC
     amino acids; A8 = polar amino acids or D- or L-Ala; A12, A13, A14 and A15
CC
     = polar or lipophilic amino acids or may be absent; A16 and A17= small or
CC
     polar amino acids or may be absent; A18 = hydroxy or amino; X and Y =
     polar, lipophilic, aromatic or small amino acids; n + m = 0-82; and two
CC
     or more of A1-A17, X and Y may be cyclisation amino acids, forming one or
CC
CC
     more bridges (disulphide, lactam or Gly-lactam); provided that the
CC
     peptide has (a) at least two amino acids modifications relative to the
CC
     nociceptin sequence or (b) an unnatural amino acid at position Al. These
CC
     peptides are useful for treatment and prevention of vasomotor disorders,
     specifically hot flushes in menopausal women. They can also be used for
CC
CC
     antagonising the physiological effects of opioids and for treating
     diseases related to hyperalgesia, neuroendocrine secretion, stress,
CC
     locomotor activity, anxiety, instinctive behaviour, and decrease in
CC
CC
     learning, memory, curiosity, attention and/or sensory perception
XX
SQ
     Sequence 11 AA;
                                  Score 3; DB 2; Length 11;
                          27.3%;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
  Matches
             3; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
Qу
            1 ARK 3
              111
```

RESULT 73 AAY47022

Db

7 ARK 9

AAY47022 standard; peptide; 11 AA. ID XX AAY47022; AC XXDT01-DEC-1999 (first entry) XX Immunogenic peptide having a human leukocyte antigen binding motif #1633. DE XX Human leukocyte antigen; binding; immunogenic; glycoprotein; MHC; HLA; KW immune response; T cell activation; major histocompatibility complex; KW cytotoxic T lymphocyte; CTL; tumour rejection; viral infection; cancer; ΚW prostate cancer; hepatitis B; hepatitis C; AIDS; renal carcinoma; KW vaccine; immunisation. KW XXOS Synthetic. OS Homo sapiens. XX PNWO9945954-A1. XX PD16-SEP-1999. XX PF13-MAR-1998; 98WO-US005039. XX 98WO-US005039. PR 13-MAR-1998; XX (EPIM-) EPIMMUNE INC. PA XX Sette A, Kubo RT, Sidney J, Celis E, Grey HM, Southwood S; PIXX WPI; 1999-551214/46. DR XX PTNew immunogenic peptides with HLA binding motif, useful in treatment and PTdiagnosis of cancers and viral diseases. XX PS Claim 1; Page 91; 150pp; English. XX CC AAY45390 to AAY48214 represent specifically claimed immunogenic peptides having a human major histocompatibility complex (MHC) Class I (also known CC as human leukocyte antiqen (HLA)) binding motif. The immunogenic peptides CCcan bind to a specific HLA allele (i.e. HLA-A subtypes HLA-A2.1, A1, A3.2 CC or A24.1 or HLA-B or C) and induce a cytotoxic T cell response against CC the antigen from which the peptide is derived. Cytotoxic T lymphocytes CCCC (CTLs) which destroy antigen-bearing cells are normally induced by an antigen in the form of a peptide fragment bound to a HLA molecule, rather CCthan the intact foreign antigen itself, and are particularly important in CC tumour rejection and in fighting viral infections. The peptides are CCtherefore useful therapeutically to treat or prevent viral infections and CCCCcancers in mammals (especially humans) e.g. prostate cancer, hepatitis B and C, AIDS, and renal carcinoma. They can be administered as vaccines to CC elicit an immune response in individuals susceptible or otherwise at risk CC of viral infection or cancer, or used to treat chronic or acute CC conditions. They are also useful diagnostically, and can be used to CC induce a cytotoxic T cell response, by contacting a cytotoxic T cell with CCthe peptide e.g. to produce CTLs ex vivo for infusion back into a CC patient. The polynucleotides encoding the immunogenic peptides are also CCuseful therapeutically and for immunisation as above CC

XX

```
Sequence 11 AA;
SO
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
           3 KTR 5
Qу
              111
            1 KTR 3
Db
RESULT 74
AAY07983
     AAY07983 standard; protein; 11 AA.
ΙD
XX
AC
     AAY07983;
XX
     06-JUL-1999 (first entry)
DT
XX
     Human secreted protein fragment #3 encoded from gene 38.
DE
XX
     Human; secreted protein; treatment; prevention; protein therapy; AIDS;
KW
     gene therapy; diagnosis; cancer; tumour; neurodegenerative disorder;
KW
     developmental abnormality; fetal deficiency; blood disorder; leukemia;
KW
     immune system disease; autoimmune disease; hepatic disease; lymphoma;
ΚW
     renal disease; inflammation; allergy; Alzheimer's disease; schizophrenia;
ΚW
     cognitive disorder; prostate disease; skeletal; cardiac; muscle disorder;
KW
     pulmonary disorder; transplant rejection; osteoclast; osteoporosis;
K₩
     arthritis; malignancy; digestive; endocrine; infection.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9918208-A1.
XX
PD
     15-APR-1999.
XX
PF
     01-OCT-1998;
                    98WO-US020775.
XX
PR
     02-OCT-1997;
                    97US-0060833P.
     02-OCT-1997;
                    97US-0060836P.
PR
PR
     02-OCT-1997;
                    97US-0060837P.
PR
     02-OCT-1997;
                    97US-0060838P.
PR
     02-OCT-1997;
                    97US-0060839P.
     02-OCT-1997;
                    97US-0060843P.
PR
PR
     02 - OCT - 1997;
                    97US-0060862P.
PR
     02-OCT-1997;
                    97US-0060866P.
PR
     02-OCT-1997;
                    97US-0060874P.
     02-OCT-1997;
                    97US-0060880P.
PR
PR
     02-OCT-1997;
                    97US-0060884P.
XX
PA
     (HUMA-) HUMAN GENOME SCI INC.
XX
     Duan DR, Florence KA, Rosen CA, Ruben SM, Greene JM, Young P;
PΙ
                 Yu G, Janat F, Ni J, Carter KC, Endress GA, Feng P;
ΡI
     Ferrie AM,
PΙ
     Lafleur DW,
                 Shi Y;
XX
```

DR

WPI; 1999-264022/22.

```
New isolated human genes and the secreted polypeptides they encode.
РΨ
XX
     Disclosure; Page 342; 368pp; English.
PS
XX
     This invention describes novel isolated human genes and the secreted
CC
     proteins they encode. The products of the invention are useful for
CC
     preventing, treating or ameliorating medical conditions, e.g. by protein
CC
     or gene therapy. Also pathological conditions can be diagnosed by
CC
     determining the amount of the new polypeptides in a sample or by
CC
     determining the presence of mutations in the new polynucleotides.
CC
     Specific uses are described for each of the 101 polynucleotides, based on
CC
     which tissues they are most highly expressed in, and include developing
CC
CC
     products for the diagnosis or treatment of cancer, tumours,
     neurodegenerative disorders, developmental abnormalities and fetal
CC
     deficiencies, blood disorders, leukemias, diseases of the immune system,
CC
     autoimmune diseases, hepatic and renal disease, lymphomas, inflammation,
CC
     allergies, Alzheimer's and cognitive disorders, schizophrenia, prostate
CC
     disease, skeletal or cardiac muscle disorders, pulmonary disorders,
CC
     transplant rejection, disorders involving osteoclasts such as
CC
     osteoporosis, arthritis or malignancies, digestive/endocrine disorders,
CC
     infections and AIDS. The human secreted proteins of the invention are
CC
     represented in AAY07852-Y07993 and the encoding nucleic acids are
CC
CC
     represented in AAX37451-X37552
XX
SQ
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.8e+03;
  Best Local Similarity
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
             3; Conservative
            6 ERK 8
Qу
              111
Db
            8 ERK 10
RESULT 75
     AAW67680 standard; peptide; 11 AA.
XX
АC
     AAW67680;
XX
DT
     16-MAR-1999
                 (first entry)
XX
     LXXLL signature motif #13 from protein RIP140.
DE
XX
     Nuclear protein; signature motif; receptor protein; inflammation; cancer;
KW
     interaction; inhibitor; inhibition; transcription factor; ligand.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9849561-A1.
XX
PD
     05-NOV-1998.
XX
PF
     28-APR-1998;
                    98WO-GB001238.
XX
```

XX

```
97GB-00008676.
     30-APR-1997;
PR
XX
     (IMCR ) IMPERIAL CANCER RES TECHNOLOGY.
PΑ
XX
PI
     Heery DM, Parker MG;
XX
     WPI; 1999-034672/03.
DR
XX
     Identification of inhibitors of nuclear protein/nuclear receptor
PT
PT
     interaction - useful for, e.g. treatment of disease mediated through the
     interaction such as inflammation and cancer.
PT
XX
PS
     Example 2; Fig 3A; 60pp; English.
XX
     This sequence represents an LXXLL nuclear protein signature motif found
CC
     in the 140 kD receptor interacting protein (RIP140) from nuclei. This
CC
     peptide corresponds to amino acids 184-194 of RIP140. The invention
CC
     relates to the identification of inhibitor compounds capable of reducing
CC
     the interaction between a region on a nuclear protein (R1) and a region
CC
     on a nuclear receptor (R2), where: (i) R1 is a signature motif; (ii) R2
CC
     is the region capable of interacting with the nuclear protein by binding
CC
     the signature motif; (iii) the nuclear protein is a bridging factor
CC-
     responsible for interaction between a liganded nuclear receptor and a
CC
     transcription initiation complex involved in gene expression regulation;
CC
     (iv) the nuclear receptor is a transcription factor; (v) the signature
CC
     motif is a short amino acid sequence which is the key structural element
CC
     of a nuclear protein which binds to a liganded nuclear receptor during
CC
     activation or repression of target genes. The inhibitors are expected to
CC
     be useful in the treatment of any disease mediated through any
CC
CC
     interaction between a signature motif on a nuclear protein and a nuclear
CC
     receptor, for example inflammation and cancer
XX
SO
     Sequence 11 AA;
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.8e+03;
                                                   0; Indels
                                                                              0;
  Matches
           3; Conservative 0; Mismatches
                                                                  0; Gaps
            8 KSK 10
Qу
              \parallel \parallel \parallel
            8 KSK 10
Db
```

Search completed: April 8, 2004, 15:40:01 Job time: 46.3077 secs

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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:08; Search time 11.3077 Seconds

(without alignments)

50.221 Million cell updates/sec

8542

Title: US-09-787-443A-14

Perfect score: 11

Sequence: 1 ARKTRERKSKD 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 389414 segs, 51625971 residues

Word size: (

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: Issued Patents AA:*

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5: /cgn2 6/ptodata/2/iaa/PCTUS_COMB.pep:*

6: /cgn2 6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result		% Query				
No.	Score	Match	Length	DB	ID	Description
1	4	36.4	11	3	US-08-746-160-51	Sequence 51, Appl
2	4	36.4	11	3	US-08-810-324-46	Sequence 46, Appl
3	4	36.4	11	3	US-08-679-006-16	Sequence 16, Appl
4	4	36.4	11	4	US-09-576-824A-482	Sequence 482, App
5	3	27.3	11	1	US-07-851-941-11	Sequence 11, Appl
6	3	27.3	11	1	US-07-851-941-18	Sequence 18, Appl
7	3	27.3	11	1	US-08-185-448-5	Sequence 5, Appli
8	3	27.3	11	1	US-08-480-505-1	Sequence 1, Appli
9	3	27.3	11	1	US-08-428-488-17	Sequence 17, Appl
10	3	27.3	11	1	US-08-256-771-27	Sequence 27, Appl
11	3	27.3	11	1	US-08-445-745-122	Sequence 122, App

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11 1 US-08-615-181-84
                                                        Sequence 84, Appl
         3
             27.3
12
                      11 1
                                                        Sequence 15, Appl
13
         3
             27.3
                            US-08-191-338A-15
                      11 1
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                                                        Sequence 33, Appl
14
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85	2	18.2	11	1	US-07-778-233B-26	Sequence 26, Appl
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88	2	18.2	11	1	US-07-838-264-4	Sequence 4, Appli
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91	2	18.2	11	1	US-07-819-893-6	Sequence 6, Appli
92	2	18.2	11	1	US-07-803-624-10	Sequence 10, Appl
93	2	18.2	11	1	US-07-803-624-11	Sequence 11, Appl
94	2	18.2	11	1	US-07-998-361-10	Sequence 10, Appl
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97	2	18.2	11	1	US-08-030-731A-20	Sequence 20, Appl
98	2	18.2	11	1	US-07-851-941-12	Sequence 12, Appl
99	2	18.2	11	1	US-07-851-941-13	Sequence 13, Appl
100	2	18.2	11	1	US-07-851-941-14	Sequence 14, Appl

ALIGNMENTS

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RESULT 1
US-08-746-160-51
; Sequence 51, Application US/08746160
; Patent No. 6010876
  GENERAL INFORMATION:
    APPLICANT: Lehrer, Robert I.
    APPLICANT: Harwig, Sylvia L.
    APPLICANT: Zhao, Chengquan
    APPLICANT: Lee, In-Hee
    TITLE OF INVENTION: CLAVANINS
    NUMBER OF SEQUENCES: 51
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: MORRISON & FOERSTER
      STREET: 2000 Pennsylvania Avenue, NW, suite 5500
      CITY: Washington
      STATE: DC
      COUNTRY: USA
      ZIP: 20006-1888
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
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COMPUTER: IBM Compatible
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      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/746,160
      FILING DATE: 06-NOV-1996
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
   ATTORNEY/AGENT INFORMATION:
      NAME: Murashige, Kate H
      REGISTRATION NUMBER: 29,959
      REFERENCE/DOCKET NUMBER: 22000-20563.00
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-887-1500
      TELEFAX: 202-822-0168
      TELEX:
  INFORMATION FOR SEQ ID NO: 51:
   SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-746-160-51
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RESULT 2
US-08-810-324-46
; Sequence 46, Application US/08810324C
; Patent No. 6040293
; GENERAL INFORMATION:
; APPLICANT: LEHRER, Robert I
  APPLICANT: ZHAO, Chengquan
; APPLICANT: LEE, In-Hee
; APPLICANT: HARWIG, Sylvia L.
; TITLE OF INVENTION: CLAVANINS
  FILE REFERENCE: 22000-20563.20
; CURRENT APPLICATION NUMBER: US/08/810,324C
; CURRENT FILING DATE: 1997-02-28
  EARLIER APPLICATION NUMBER: 08/746,160
  EARLIER FILING DATE: 1996-11-06
  NUMBER OF SEQ ID NOS: 52
 SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 46
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Styela clava
US-08-810-324-46
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RESULT 3
US-08-679-006-16
; Sequence 16, Application US/08679006
; Patent No. 6150500
  GENERAL INFORMATION:
     APPLICANT: Salerno, John C.
     TITLE OF INVENTION: APPLICATIONS FOR REGULATORY REGION OF
;
     TITLE OF INVENTION: NOS ISOFORMS
     NUMBER OF SEQUENCES: 35
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
       STREET: Two Militia Drive
       CITY: Lexington
       STATE: Massachusetts
       COUNTRY: USA
       ZIP: 02173
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/679,006
       FILING DATE: 12-JUL-1996
       CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Brook, David E.
       REGISTRATION NUMBER: 22,592
      REFERENCE/DOCKET NUMBER: JCS96-01
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (617) 861-6240
       TELEFAX: (617) 861-9540
   INFORMATION FOR SEQ ID NO: 16:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS:
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
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6 EKKS 9

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RESULT 4
US-09-576-824A-482
; Sequence 482, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
                       EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION:
  TITLE OF INVENTION: CONTAINING THEM
   FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
 SEO ID NO 482
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
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RESULT 5 US-07-851-941-11

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; Sequence 11, Application US/07851941
 Patent No. 5428016
  GENERAL INFORMATION:
    APPLICANT: Mamoru TOMITA et al.
    TITLE OF INVENTION: Antimicrobial Peptide and an
    TITLE OF INVENTION: Antimicrobial Agent
    NUMBER OF SEQUENCES: 18
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Wenderoth, Lind & Ponack
      STREET: 805 Fifteenth Street, N.W., #700
      CITY: Washington
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 5.25 inch, 500 kb
      COMPUTER: IBM Compatible
;
      OPERATING SYSTEM: MS-DOS
      SOFTWARE: DisplayWrite
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/851,941
      FILING DATE: 19920313
      CLASSIFICATION: 530
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/851,941
      FILING DATE: March 13, 1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Warren M. Cheek, Jr.
      REGISTRATION NUMBER: 33,367
      REFERENCE/DOCKET NUMBER:
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-8850
      TELEFAX:
      TELEX:
  INFORMATION FOR SEQ ID NO:
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    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acid residues
      TYPE: AMINO ACID
     STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL:
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US-07-851-941-18
; Sequence 18, Application US/07851941
; Patent No. 5428016
  GENERAL INFORMATION:
    APPLICANT: Mamoru TOMITA et al.
    TITLE OF INVENTION: Antimicrobial Peptide and an
    TITLE OF INVENTION: Antimicrobial Agent
    NUMBER OF SEQUENCES: 18
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Wenderoth, Lind & Ponack
      STREET: 805 Fifteenth Street, N.W., #700
      CITY: Washington
    STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20005
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      MEDIUM TYPE: Diskette, 5.25 inch, 500 kb
       COMPUTER: IBM Compatible
      OPERATING SYSTEM: MS-DOS
       SOFTWARE: DisplayWrite
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      FILING DATE: 19920313
      CLASSIFICATION: 530
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PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/851,941
      FILING DATE: March 13, 1992
    ATTORNEY/AGENT INFORMATION:
      NAME: Warren M. Cheek, Jr.
      REGISTRATION NUMBER: 33,367
      REFERENCE/DOCKET NUMBER:
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-8850
      TELEFAX:
      TELEX:
  INFORMATION FOR SEQ ID NO: 18:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acid residues
      TYPE: AMINO ACID
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL:
    ANTI-SENSE:
    FRAGMENT TYPE:
    ORIGINAL SOURCE:
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      AUTHORS:
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      ISSUE:
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; Sequence 5, Application US/08185448
; Patent No. 5580747
 GENERAL INFORMATION:
    APPLICANT: SHULTZ, JOHN W.
    APPLICANT: WHITE, DOUGLAS H.
    TITLE OF INVENTION: NON-RADIOACTIVE KINASE,
    TITLE OF INVENTION: PHOSPHATASE AND PROTEASE ASSAY
    NUMBER OF SEQUENCES: 11
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ANDRUS, SCEALES, STARKE & SAWALL
      STREET: 100 E. WISCONSIN AVENUE, SUITE 1100
      CITY: MILWAUKEE
      STATE: WISCONSIN
      COUNTRY: USA
      ZIP: 53202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version
      SOFTWARE: #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/185,448
      FILING DATE: 21-JAN-1994
     CLASSIFICATION: 435
   PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/791,928
      FILING DATE: 12-NOV-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: SARA, CHARLES S
      REGISTRATION NUMBER: 30492
      REFERENCE/DOCKET NUMBER: F.3347-1
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (608) 255-2022
      TELEFAX: (608) 255-2182
      TELEX: 26832 ANDSTARK
  INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
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     NAME/KEY: Binding-site
      LOCATION:
      OTHER INFORMATION: /label= LABEL
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OTHER INFORMATION: /note= "LOCATION OF LISSAMINE RHODAMINE
      OTHER INFORMATION: DETECTION TAG"
US-08-185-448-5
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Qу
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Db
RESULT 8
US-08-480-505-1
; Sequence 1, Application US/08480505
; Patent No. 5601821
; GENERAL INFORMATION:
    APPLICANT: STANWORTH, DENIS R
    APPLICANT: LEWIN, IAN V
    APPLICANT: NAYYAR, SARITA
    APPLICANT: JONES, VALERIE
    TITLE OF INVENTION: IMMUNOACTIVE PEPTIDES AND ANTIBODIES AND
;
    TITLE OF INVENTION: THEIR USE IN ANTI-ALLERGY TREATMENT
;
    NUMBER OF SEQUENCES: 10
;
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 14TH FLOOR, 2200 CLARENDON BOULEVARD
      CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: USA
      ZIP: 22201-3360
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/480,505
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/102,692
      FILING DATE:
      APPLICATION NUMBER: US 07/776,380
      FILING DATE: 26-NOV-1991
      APPLICATION NUMBER: GB 8913737.6
      FILING DATE: 15-JUN-1989
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/GB90/00926
      FILING DATE: 15-JUN-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: MITCHARD, LEONARD C
      REGISTRATION NUMBER: 29,009
     REFERENCE/DOCKET NUMBER: 604-176
    TELECOMMUNICATION INFORMATION:
     TELEPHONE: (703) 875-0400
```

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TELEFAX: (703) 525-3468
;
   INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
    HYPOTHETICAL: NO
    FRAGMENT TYPE: internal
    ORIGINAL SOURCE:
      ORGANISM: Fc region of human immunoglobulin E
    PUBLICATION INFORMATION:
      AUTHORS: Bennich, H
      AUTHORS: Bahr-Lindastrom, H
      JOURNAL: Prog. Immunol.
      VOLUME: 11
      PAGES: 49-58
      DATE: 1978
US-08-480-505-1
                         27.3%; Score 3; DB 1; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches 0; Indels
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 Matches
                                                                           0;
           2 RKT 4
Qу
            -111
           1 RKT 3
Db
RESULT 9
US-08-428-488-17
; Sequence 17, Application US/08428488
; Patent No. 5624894
  GENERAL INFORMATION:
    APPLICANT: BODOR, Nicholas S.
    TITLE OF INVENTION: BRAIN-ENHANCED DELIVERY OF NEUROACTIVE
    TITLE OF INVENTION: PEPTIDES BY SEQUENTIAL METABOLISM
    NUMBER OF SEQUENCES: 107
   CORRESPONDENCE ADDRESS:
      ADDRESSEE: Burns, Doane, Swecker & Mathis
      STREET: P.O. Box 1404
      CITY: Alexandria
      STATE: Virginia
      COUNTRY: United States
      ZIP: 22313-1404
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/428,488
      FILING DATE: 27-APR-1995
      CLASSIFICATION: 514
    ATTORNEY/AGENT INFORMATION:
      NAME: Baumeister, Mary Katherine
      REGISTRATION NUMBER: 26,254
```

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REFERENCE/DOCKET NUMBER: 028724-087
;
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 836-6620
      TELEFAX: (703) 836-2021
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 1
      OTHER INFORMATION: /note= "Position 1 = p-Glu."
     FEATURE:
      NAME/KEY: Modified-site
      LOCATION: 11
      OTHER INFORMATION: /note= "Position 11 = Met-NH2."
US-08-428-488-17
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
 Matches
                                                                           0;
           9 SKD 11
Qу
             -111
Db
           3 SKD 5
RESULT 10
US-08-256-771-27
; Sequence 27, Application US/08256771
; Patent No. 5656591
  GENERAL INFORMATION:
    APPLICANT: Mamoru TOMITA et al.
    TITLE OF INVENTION: ANTIMICROBIAL AGENTS AND METHOD FOR TREATING
    TITLE OF INVENTION: PRODUCTS THEREWITH
    NUMBER OF SEQUENCES: 32
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Wenderoth, Lind & Ponack
      STREET: 805 Fifteenth Street, N.W., #700
      CITY: Washington
      STATE: D.C.
      COUNTRY: U.S.A.
      ZIP: 20005
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 5.25 inch, 500 kb
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: MS-DOS
      SOFTWARE: Wordperfect 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/256,771
      FILING DATE: July 22, 1994
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
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FILING DATE:
;
     ATTORNEY/AGENT INFORMATION:
      NAME: Warren M. Cheek, Jr.
      REGISTRATION NUMBER: 33,367
      REFERENCE/DOCKET NUMBER:
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202-371-8850
      TELEFAX:
      TELEX:
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-256-771-27
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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  Matches
            3 KTR 5
Qу
             111
            1 KTR 3
RESULT 11
US-08-445-745-122
; Sequence 122, Application US/08445745
; Patent No. 5672585
  GENERAL INFORMATION:
     APPLICANT: Pierschbacher, Michael D.
     APPLICANT: Cheng, Soan
     APPLICANT: Craig, William S.
     APPLICANT: Tschopp, Juerg F.
     TITLE OF INVENTION: Methods and Composition for Treating
     TITLE OF INVENTION: Thrombosis
    NUMBER OF SEQUENCES: 168
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Campbell and Flores
       STREET: 4370 La Jolla Village Drive, Suite 700
       CITY: San Diego
       STATE: California
       COUNTRY: USA
       ZIP: 92122
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/445,745
      FILING DATE:
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/171,068
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FILING DATE: 20-DEC-1993
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      APPLICATION NUMBER: US 08/079,441
      FILING DATE: 18-JUN-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/050,73614
      FILING DATE: 14-APR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/681,119
      FILING DATE: 05-APR-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/506,444
      FILING DATE: 06-APR-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-LA 9829
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
      TELEFAX: (619) 535-8949
  INFORMATION FOR SEO ID NO: 122:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
    FEATURE:
      NAME/KEY: Peptide
      LOCATION: 2
      OTHER INFORMATION: /note= "Xaa = (orn)"
US-08-445-745-122
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
          3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
          5 RER 7
Qу
            Db
           9 RER 11
RESULT 12
US-08-615-181-84
; Sequence 84, Application US/08615181
; Patent No. 5756666
; GENERAL INFORMATION:
    APPLICANT: MASAFUMI, TAKIGUCHI
    APPLICANT: MIWA, KIYOSHI
    TITLE OF INVENTION: PEPTIDES CAPABLE OF INDUCING IMMUNE
    TITLE OF INVENTION: RESPONSE TO HIV AND ANTI-AIDS AGENT FOR PREVENTING AND
    TITLE OF INVENTION: CURING AIDS
    NUMBER OF SEQUENCES: 115
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE: P.C.
      STREET: 1755 S. JEFFERSON DAVIS HIGHWAY, SUITE 400
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
```

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ZIP: 22202
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/615,181
      FILING DATE: 04-APR-1996
      CLASSIFICATION: 424
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/JP94/01756
      FILING DATE: 19-OCT-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 261302/1993
      FILING DATE: 19-OCT-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: OBLON, NORMAN F.
      REGISTRATION NUMBER: 24,618
      REFERENCE/DOCKET NUMBER: 10-796-0 PCT
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 703-413-3000
      TELEFAX: 703-413-2220
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    ORIGINAL SOURCE:
      ORGANISM: HUMAN IMMUNODEFICIENCY VIRUS
US-08-615-181-84
 Query Match
                         27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
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                                                                0; Gaps
                                                                            0;
           7 RKS 9
Qу
             III
           7 RKS 9
Db
RESULT 13
US-08-191-338A-15
; Sequence 15, Application US/08191338A
; Patent No. 5763164
  GENERAL INFORMATION:
    APPLICANT: Calenoff, Emanuel
    TITLE OF INVENTION: Immunogenic Cancer Proteins and Peptides
    TITLE OF INVENTION: and Method of Use
    NUMBER OF SEQUENCES: 38
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Arnold, White & Durkee
      STREET: 321 No. 5763164th Clark Street, Suite 800
      CITY: Chicago
      STATE: IL
```

```
COUNTRY: USA
;
      ZIP: 60610
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/191,338A
      FILING DATE: 12-JAN-1994
      CLASSIFICATION: 436
    ATTORNEY/AGENT INFORMATION:
      NAME: No. 5763164thrup, Thomas E.
      REGISTRATION NUMBER: 33,268
      REFERENCE/DOCKET NUMBER: nwun:002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 312-744-0090
      TELEFAX: 312-755-4489
   INFORMATION FOR SEQ ID NO: 15:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY: Xaa
      LOCATION: 5
      IDENTIFICATION METHOD: Phosphorylated Tyrosine
US-08-191-338A-15
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           9 SKD 11
Qу
             -111
           6 SKD 8
RESULT 14
US-08-408-604A-33
; Sequence 33, Application US/08408604A
; Patent No. 5801149
  GENERAL INFORMATION:
    APPLICANT: Shoelson, Steven
    TITLE OF INVENTION: INHIBITION OF SIGNAL TRANSDUCTION MOLECULES
    NUMBER OF SEQUENCES: 211
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
      STREET: 60 State Street, Suite 510
      CITY: Boston
      STATE: Massachusetts
      COUNTRY: USA
      ZIP: 02109-1875
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/408,604A
      FILING DATE: 21-MAR-1995
;
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US 08/134,558
      FILING DATE: 08-OCT-1993
   PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,949
     FILING DATE: 09-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/722,359
      FILING DATE: 19-JUNE-1991
;
    ATTORNEY/AGENT INFORMATION:
     NAME: Myers, Louis
     REGISTRATION NUMBER: 35,965
     REFERENCE/DOCKET NUMBER: JDP-014CP3
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617)227-7400
      TELEFAX: (617)227-5941
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-408-604A-33
 Query Match
                        27.3%; Score 3; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                          0;
                                                             0; Gaps
          9 SKD 11
Qу
            111
          8 SKD 10
RESULT 15
US-08-408-604A-79
; Sequence 79, Application US/08408604A
; Patent No. 5801149
; GENERAL INFORMATION:
    APPLICANT: Shoelson, Steven
    TITLE OF INVENTION: INHIBITION OF SIGNAL TRANSDUCTION MOLECULES
    NUMBER OF SEQUENCES: 211
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: LAHIVE & COCKFIELD
      STREET: 60 State Street, Suite 510
      CITY: Boston
      STATE: Massachusetts
      COUNTRY: USA
     ZIP: 02109-1875
   COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/408,604A
      FILING DATE: 21-MAR-1995
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/134,558
      FILING DATE: 08-OCT-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,949
      FILING DATE: 09-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/722,359
      FILING DATE: 19-JUNE-1991
    ATTORNEY/AGENT INFORMATION:
     NAME: Myers, Louis
      REGISTRATION NUMBER: 35,965
      REFERENCE/DOCKET NUMBER: JDP-014CP3
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617)227-7400
      TELEFAX: (617)227-5941
  INFORMATION FOR SEQ ID NO: 79:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
US-08-408-604A-79
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          3; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           9 SKD 11
             Db
           8 SKD 10
RESULT 16
US-08-633-760-37
; Sequence 37, Application US/08633760
; Patent No. 5804429
  GENERAL INFORMATION:
    APPLICANT: NIWA, MINEO
    APPLICANT: SAITO, YOSHIMASA
    APPLICANT: FUJIMURA, TAKAO
    APPLICANT: ISHII, YOSHINORI
    APPLICANT: NOGUCHI, YUJI
    TITLE OF INVENTION: A NEW CEPHALOSPORIN C ACYLASE
    NUMBER OF SEQUENCES: 64
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
      ADDRESSEE:
                  P.C.
      STREET: 1755 JEFFERSON DAVIS HIGHWAY, SUITE 400
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CITY: ARLINGTON
      STATE: VIRGINIA
      COUNTRY: USA
      ZIP: 22202
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/633,760
      FILING DATE: 01-MAY-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
;
      NAME: OBLON, NORMAN F.
;
      REGISTRATION NUMBER: 24,618
;
      REFERENCE/DOCKET NUMBER: 18-929-0 PCT
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (703) 413-3000
      TELEFAX: (703) 413-2220
;
      TELEX: 248855 OPAT UR
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-633-760-37
                         27.3%; Score 3; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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            3; Conservative
           3 KTR 5
Qу
             | | | |
Db
           5 KTR 7
RESULT 17
US-08-381-984-31
; Sequence 31, Application US/08381984
; Patent No. 5804555
; GENERAL INFORMATION:
     APPLICANT: Mamoru TOMITA et al.
     TITLE OF INVENTION: ANTIOXIDANT
     NUMBER OF SEQUENCES: 32
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Wenderoth, Lind & Ponack
       STREET: 805 Fifteenth Street, N.W., #700
      CITY: Washington
      STATE: D.C.
      COUNTRY: U.S.A.
       ZIP: 20005
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette, 3.5 inch, 1.44 mb
       COMPUTER: IBM Compatible
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OPERATING SYSTEM: MS-DOS
;
       SOFTWARE: Wordperfect 5.1
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/381,984
       FILING DATE: April 11, 1995
       CLASSIFICATION: 252
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER:
       FILING DATE:
    ATTORNEY/AGENT INFORMATION:
       NAME: Warren M. Cheek, Jr.
       REGISTRATION NUMBER:
                            33,367
       REFERENCE/DOCKET NUMBER:
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202-371-8850
       TELEFAX:
       TELEX:
   INFORMATION FOR SEQ ID NO: 31:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
      NAME/KEY:
       LOCATION:
       IDENTIFICATION METHOD:
       OTHER INFORMATION: /note= "the specified peptide as well as
       OTHER INFORMATION: peptides including the specified peptide as a
fragment thereof"
US-08-381-984-31
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
Qу
            3 KTR 5
              | | |
Db
            1 KTR 3
RESULT 18
US-08-737-085A-12
; Sequence 12, Application US/08737085A
; Patent No. 5869232
   GENERAL INFORMATION:
     APPLICANT: SALLBERG, MATTI
     TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
     TITLE OF INVENTION: EXCHANGER
     NUMBER OF SEQUENCES: 23
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: DARBY & DARBY PC
       STREET: 805 Third Avenue
       CITY: New York
       STATE: New York
      COUNTRY: USA
```

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ZIP: 10022
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    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/737,085A
      FILING DATE: 27-DEC-1996
      CLASSIFICATION: 426
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Green, Reza
      REGISTRATION NUMBER: 38,475
      REFERENCE/DOCKET NUMBER: 3846/0C569
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 212-527-7659
      TELEFAX: 212-753-6237
      TELEX: 236687
  INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-737-085A-12
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
           2 RKT 4
Qу
             -111
Db
           2 RKT 4
RESULT 19
US-07-737-371E-73
; Sequence 73, Application US/07737371E
; Patent No. 5876948
  GENERAL INFORMATION:
    APPLICANT: Yankner, Bruce A.
    TITLE OF INVENTION: SCREENING METHODS TO IDENTIFY
    TITLE OF INVENTION: NEUROTOXIN INHIBITORS (AS AMENDED)
    NUMBER OF SEQUENCES: 77
    CORRESPONDENCE ADDRESS: .
      ADDRESSEE: Fish & Richardson, P.C.
      STREET: 225 Franklin Street
      CITY: Boston
      STATE: MA
      COUNTRY: US
      ZIP: 02110-2804
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
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COMPUTER: IBM Compatible
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      OPERATING SYSTEM: Windows95
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/737,371E
      FILING DATE: 29-JUL-1991
      CLASSIFICATION: 536
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 07/559,172
      FILING DATE: 27-JUL-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Freeman, John W.
      REGISTRATION NUMBER: 29,066
      REFERENCE/DOCKET NUMBER: 00108/028002
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 617-542-5070
      TELEFAX: 617-542-8906
      TELEX: 200154
  INFORMATION FOR SEQ ID NO: 73:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-07-737-371E-73
                         27.3%; Score 3; DB 2; Length 11;
 Query Match
                         100.0%; Pred. No. 2.1e+03;
 Best Local Similarity
           3: Conservative
                               0; Mismatches
                                                  0; Indels
                                                                    Gaps
 Matches
           9 SKD 11
Qу
             111
Db
           3 SKD 5
RESULT 20
US-08-466-975A-3
; Sequence 3, Application US/08466975A
; Patent No. 5910404
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
;
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
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       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/466,975A
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
     NAME: SADOFF, B.J.
     REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-466-975A-3
 Query Match 27.3%; Score 3; DB 2; Length 11; Best Local Similarity 100.0%; Pred. No. 2.1e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
Qу
            2 RKT 4
             2 RKT 4
Db
RESULT 21
US-08-391-671A-3
; Sequence 3, Application US/08391671A
; Patent No. 5922532
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
```

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CITY: ARLINGTON
    STATE: VA
      COUNTRY: USA
      ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671A
      FILING DATE: 21-FEB-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
      FILING DATE: 13-DEC-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90124241.2
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-391-671A-3
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
         3; Conservative 0; Mismatches 0; Indels
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Qу
             Db
           2 RKT 4
RESULT 22
US-08-747-137-63
; Sequence 63, Application US/08747137
; Patent No. 5945033
  GENERAL INFORMATION:
    APPLICANT: YEN, Richard C.K.
    TITLE OF INVENTION: NON-CROSSLINKED PROTEIN PARTICLES FOR
    TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC USE
    NUMBER OF SEQUENCES: 184
    CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, 8th Floor
      CITY: San Francisco
      STATE: CA
      COUNTRY: USA
      ZIP: 94111
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/747,137
      FILING DATE: 12-NOV-1996
;
      CLASSIFICATION: 424
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/212,546
      FILING DATE: 14-MAR-1994
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US 08/069,831
      FILING DATE: 01-JUN-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/959,560
      FILING DATE: 13-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/641,720
      FILING DATE: 15-JAN-1991
    ATTORNEY/AGENT INFORMATION:
      NAME: Apple, Randolph T.
      REGISTRATION NUMBER: 36,429
      REFERENCE/DOCKET NUMBER: 016197-000840US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-576-0200
   INFORMATION FOR SEQ ID NO: 63:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
      STRANDEDNESS: not relevant
       TOPOLOGY: not relevant
US-08-747-137-63
                         27.3%; Score 3; DB 2; Length 11;
  Query Match
                         100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
           3; Conservative 0; Mismatches
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                                                                0; Gaps
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           7 RKS 9
Qу
              +11
            5 RKS 7
Db
RESULT 23
US-08-482-228-200
; Sequence 200, Application US/08482228
; Patent No. 5968753
; GENERAL INFORMATION:
     APPLICANT: Tseng-Law, Janet
     APPLICANT: Kobori, Joan A.
```

```
APPLICANT: Al-Abdaly, Fahad A.
;
    APPLICANT: Guillermo, Roy
    APPLICANT: Helgerson, Sam L.
    APPLICANT: Deans, Robert J.
    TITLE OF INVENTION: POSITIVE AND POSITIVE/NEGATIVE CELL
    TITLE OF INVENTION: SELECTION MEDIATED BY PEPTIDE RELEASE
    NUMBER OF SEQUENCES: 215
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Janice Guthrie, Ph.D.
      STREET: P.O. Box 15210
      CITY: Irvine
      STATE: California
      COUNTRY: USA
      ZIP: 92713-5210
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/482,228
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Guthrie, Janice
      REGISTRATION NUMBER: 35,170
      REFERENCE/DOCKET NUMBER: IT-4630CIP3
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (714) 440-5353
      TELEFAX: (714) 553-1952
   INFORMATION FOR SEQ ID NO: 200:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-482-228-200
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 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
                                                  0;
                                                                0; Gaps
                                                                            0;
 Matches
                                                     Indels
           9 SKD 11
Qу
             I \mid I
Db
           9 SKD 11
RESULT 24
US-08-751-767A-29
; Sequence 29, Application US/08751767A
; Patent No. 5994104
  GENERAL INFORMATION:
    APPLICANT: ANDERSON, ROBERT J.
    APPLICANT: GRANT, HUGH
    APPLICANT: MACDONALD, IAN D.
     TITLE OF INVENTION: INTERLUKIN-12 FUSION PROTEIN
     NUMBER OF SEQUENCES: 80
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```
CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
      ZIP: 22201
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/751,767A
      FILING DATE: 08-NOV-1996
      CLASSIFICATION: 536
    ATTORNEY/AGENT INFORMATION:
      NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 117-221
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164091
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-751-767A-29
                        27.3%; Score 3; DB 2; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
          3; Conservative 0; Mismatches 0; Indels
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 Matches
           7 RKS 9
Qу
             Db
           2 RKS 4
RESULT 25
US-09-115-209-74
; Sequence 74, Application US/09115209
; Patent No. 5998375
; GENERAL INFORMATION:
; APPLICANT: Thogersen, Henning
 APPLICANT: Madsen, Kjeld
  APPLICANT: Olsen, Uffe B.
  APPLICANT: Johansen, Nils L.
  APPLICANT: Scheideler, Mark
  TITLE OF INVENTION: No. 5998375iceptin Analogues
  FILE REFERENCE: 5285.200-US
  CURRENT APPLICATION NUMBER: US/09/115,209
; CURRENT FILING DATE: 1998-07-14
; EARLIER APPLICATION NUMBER: 0867/97
; EARLIER FILING DATE: 1997-07-15
; EARLIER APPLICATION NUMBER: 60/052,862
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EARLIER FILING DATE: 1997-07-17
  NUMBER OF SEQ ID NOS: 76
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 74
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Human
   FEATURE:
   OTHER INFORMATION: Xaa at position 10 is Orn
US-09-115-209-74
  Query Match
                         27.3%; Score 3; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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            3; Conservative
                                                                0; Gaps
                                                                            0;
  Matches
           1 ARK 3
Qу
             -111
           7 ARK 9
Db
RESULT 26
US-08-467-902A-3
; Sequence 3, Application US/08467902A
; Patent No. 6007982
; GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
      STATE: VA
      COUNTRY: USA
;
      ZIP: 22201
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/467,902A
      FILING DATE:
      CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/391,671
      FILING DATE:
      APPLICATION NUMBER: US 07/920,286
      FILING DATE: 14-OCT-1992
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/EP91/02409
       FILING DATE: 13-DEC-1991
     PRIOR APPLICATION DATA:
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APPLICATION NUMBER: EP 90124241.2
;
      FILING DATE: 14-DEC-1990
    ATTORNEY/AGENT INFORMATION:
     NAME: SADOFF, B.J.
      REGISTRATION NUMBER: 36,663
      REFERENCE/DOCKET NUMBER: 1487-5
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 7038164000
      TELEFAX: 7038164100
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
     LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-467-902A-3
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
          2 RKT 4
Qy
            2 RKT 4
Db
RESULT 27
US-08-482-528-200
; Sequence 200, Application US/08482528
; Patent No. 6017719
; GENERAL INFORMATION:
    APPLICANT: Tseng-Law, Janet APPLICANT: Kobori, Joan A.
    APPLICANT: Al-Abdaly, Fahad A.
    APPLICANT: Guillermo, Roy
    APPLICANT: Helgerson, Sam L.
    APPLICANT: Deans, Robert J.
    TITLE OF INVENTION: POSITIVE AND POSITIVE/NEGATIVE CELL
    TITLE OF INVENTION: SELECTION MEDIATED BY PEPTIDE RELEASE NUMBER OF SEQUENCES: 215
   CORRESPONDENCE ADDRESS:
;
     ADDRESSEE: Janice Guthrie, Ph.D.
      STREET: P.O. Box 15210
      CITY: Irvine
      STATE: California
      COUNTRY: USA
      ZIP: 92713-5210
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/482,528
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
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ATTORNEY/AGENT INFORMATION:
      NAME: Guthrie, Janice
      REGISTRATION NUMBER: 35,170
      REFERENCE/DOCKET NUMBER: IT-4630CIP4
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (714) 440-5353
      TELEFAX: (714) 553-1952
  INFORMATION FOR SEQ ID NO: 200:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-482-528-200
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
          9 SKD 11
Qу
             -111
           9 SKD 11
Db
RESULT 28
US-09-246-258-12
; Sequence 12, Application US/09246258
; Patent No. 6040137
; GENERAL INFORMATION:
    APPLICANT: SALLBERG, MATTI
    TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
    TITLE OF INVENTION: EXCHANGER
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: DARBY & DARBY PC
      STREET: 805 Third Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10022
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ for Windows Version 2.0
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/246,258
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/737,085
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Green, Reza
      REGISTRATION NUMBER: 38,475
      REFERENCE/DOCKET NUMBER: 3846/0C569
    TELECOMMUNICATION INFORMATION:
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TELEPHONE: 212-527-7659
      TELEFAX: 212-753-6237
      TELEX: 236687
  INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-246-258-12
                         27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           2 RKT 4
Qу
             - | | |
           2 RKT 4
Db
RESULT 29
US-08-444-818-105
; Sequence 105, Application US/08444818
; Patent No. 6150087
  GENERAL INFORMATION:
    APPLICANT: Chien, David Y.
    APPLICANT: Rutter, William J.
    TITLE OF INVENTION: NAMBV Diagnostics and Vaccines
    NUMBER OF SEQUENCES: 777
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Chiron Corporation
      STREET: 4560 Horton Street
      CITY: Emeryville
      STATE: CA
      COUNTRY: USA
      ZIP: 94608-2916
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/444,818
       FILING DATE:
       CLASSIFICATION: 424
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/403,590
       FILING DATE: 14-MAR-1995
     ATTORNEY/AGENT INFORMATION:
      NAME: Harbin, Alisa A.
       REGISTRATION NUMBER: 33,895
       REFERENCE/DOCKET NUMBER: 0110.002
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (508) 359-3876
       TELEFAX: (508)359-3885
   INFORMATION FOR SEQ ID NO: 105:
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SEQUENCE CHARACTERISTICS:
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       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-444-818-105
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                                               0;
                                                    0; Indels
                                                                   0; Gaps
  Matches
            5 RER 7
Qу
              \perp
            4 RER 6
Db
RESULT 30
US-08-392-542-4
; Sequence 4, Application US/08392542
; Patent No. 6169073
  GENERAL INFORMATION:
    APPLICANT: Halazonetis, Thanos
     APPLICANT: Hartwig, Wolfgang
    TITLE OF INVENTION: Peptides nad Peptidomimetics with
TITLE OF INVENTION: Structural Similarity to Human p53 That Activate p53
;
     TITLE OF INVENTION: Function
    NUMBER OF SEQUENCES: 35
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Banner, Birch, McKie & Beckett
       STREET: 1001 G Street, N.W.
       CITY: Washington, D.C.
       STATE: District of Columbia
;
       COUNTRY: U.S.
;
       ZIP: 20001
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
;
       APPLICATION NUMBER: US/08/392,542
;
       FILING DATE:
;
       CLASSIFICATION: 514
     ATTORNEY/AGENT INFORMATION:
       NAME: Posorske, Laurence H.
       REGISTRATION NUMBER: 34,698
       REFERENCE/DOCKET NUMBER: 0486.48439
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 202 508-9100
       TELEFAX: 202 508-9299
   INFORMATION FOR SEQ ID NO: 4:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-392-542-4
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27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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            3; Conservative 0; Mismatches
                                                               0; Gaps
           8 KSK 10
Qу
             +111
           8 KSK 10
Db
RESULT 31
US-08-392-542-13
; Sequence 13, Application US/08392542
; Patent No. 6169073
  GENERAL INFORMATION:
    APPLICANT: Halazonetis, Thanos
;
    APPLICANT: Hartwig, Wolfgang
    TITLE OF INVENTION: Peptides nad Peptidomimetics with
    TITLE OF INVENTION: Structural Similarity to Human p53 That Activate p53
    TITLE OF INVENTION: Function
    NUMBER OF SEQUENCES: 35
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Banner, Birch, McKie & Beckett
      STREET: 1001 G Street, N.W.
      CITY: Washington, D.C.
      STATE: District of Columbia
      COUNTRY: U.S.
      ZIP: 20001
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/392,542
      FILING DATE:
      CLASSIFICATION:
                       514
    ATTORNEY/AGENT INFORMATION:
      NAME: Posorske, Laurence H.
      REGISTRATION NUMBER: 34,698
      REFERENCE/DOCKET NUMBER: 0486.48439
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 202 508-9100
       TELEFAX: 202 508-9299
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-392-542-13
  Query Match
                         27.3%; Score 3; DB 3; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                                               0; Gaps
  Matches
            3; Conservative 0; Mismatches 0; Indels
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RESULT 32
US-08-602-999A-283
; Sequence 283, Application US/08602999A
; Patent No. 6184205
   GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
                THORN, Judith M.
    APPLICANT:
                QUILLIAM, Lawrence A.
    APPLICANT:
    APPLICANT: DER, Channing J.
                FOWLKES, Dana M.
    APPLICANT:
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-602-999A-283
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches
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                                                                0; Gaps
  Matches
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3 KTR 5

Qу

MOLECULE TYPE: peptide

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RESULT 33
US-08-652-877-73
; Sequence 73, Application US/08652877
 Patent No. 6187548
  GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
    APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
    APPLICANT: Crumley, Gregg R.
    APPLICANT: Morse, Clarence C.
    APPLICANT: Murray, Edward M.
    APPLICANT: Hjalm, Goran
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
    TITLE OF INVENTION: Thereof and DNA Encoding Same
    NUMBER OF SEQUENCES: 106
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Rhone-Poulenc Rorer Inc.
       STREET: 500 Arcola Rd., 3C43
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
      ZIP: 19426-0107
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Macintosh
      OPERATING SYSTEM: System 7.5.1
       SOFTWARE: Word 6.0 (Patentin)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/652,877
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/15203
       FILING DATE: 22-NOV-1995
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/344,836
       FILING DATE: 23-NOV-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/487,314
      FILING DATE: 07-JUNE-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355E-US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 610-454-3816
      TELEFAX: 610-454-3808
  INFORMATION FOR SEQ ID NO:
                             73:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
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FRAGMENT TYPE: internal
US-08-652-877-73
 Query Match
                        27.3%; Score 3; DB 3; Length 11;
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           4 TRE 6
Qу
             3 TRE 5
Db
RESULT 34
US-09-208-966-3
; Sequence 3, Application US/09208966
; Patent No. 6221355
; GENERAL INFORMATION:
; APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/208,966
; CURRENT FILING DATE: 1998-12-10
; EARLIER APPLICATION NUMBER: 60/082,402
; EARLIER FILING DATE: 1998-04-20
; EARLIER APPLICATION NUMBER: 60/069,012
; EARLIER FILING DATE: 1997-12-10
; NUMBER OF SEQ ID NOS: 57
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
  LENGTH: 11
   TYPE: PRT
   ORGANISM: human
US-09-208-966-3
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
           1 ARK 3
Qу
             Db
           2 ARK 4
RESULT 35
US-08-647-405B-3
; Sequence 3, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
; APPLICANT: Chait, Brian T.
 APPLICANT: Zhao, Yingming
; APPLICANT: Kent, Stephen B.H.
  TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
; FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
; NUMBER OF SEQ ID NOS: 7
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HYPOTHETICAL: NO

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SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Related to
   OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-3
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
                         100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                                  0; Indels
                                                                            0;
             3; Conservative
                                0; Mismatches
                                                                 0;
                                                                   Gaps
            1 ARK 3
Qу
              3 ARK 5
Db
RESULT 36
US-08-647-405B-4
; Sequence 4, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
; APPLICANT: Chait, Brian T.
  APPLICANT: Zhao, Yingming
  APPLICANT: Kent, Stephen B.H.
  TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
  FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Related to
    OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-4
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
           3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            1 ARK 3
Qy
              \prod
            3 ARK 5
Db
RESULT 37
US-08-647-405B-6
; Sequence 6, Application US/08647405B
; Patent No. 6228654
; GENERAL INFORMATION:
; APPLICANT: Chait, Brian T.
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APPLICANT: Zhao, Yingming
  APPLICANT: Kent, Stephen B.H.
  TITLE OF INVENTION: METHODS FOR STRUCTURE ANALYSIS OF OLIGOSACCHARIDES
  FILE REFERENCE: Oligosaccharides
  CURRENT APPLICATION NUMBER: US/08/647,405B
  CURRENT FILING DATE: 1996-05-09
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: Related to
    OTHER INFORMATION: human translationally controlled tumor protein
US-08-647-405B-6
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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                             0; Mismatches
                                               0; Indels
           3; Conservative
           9 SKD 11
Qу
              III
Db
           3 SKD 5
RESULT 38
US-09-177-249-212
; Sequence 212, Application US/09177249
; Patent No. 6229064
; GENERAL INFORMATION:
  APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
 APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
  TITLE OF INVENTION: Development in Plants
  FILE REFERENCE: 023070-086120US
  CURRENT APPLICATION NUMBER: US/09/177,249
  CURRENT FILING DATE: 1998-10-22
  EARLIER APPLICATION NUMBER: US 09/071,838
; EARLIER FILING DATE: 1998-05-01
 NUMBER OF SEQ ID NOS: 324
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 212
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis sp.
US-09-177-249-212
                         27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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                                                                            0;
            3; Conservative 0; Mismatches 0; Indels
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7 RKS 9
Qу
              | | |
            2 RKS 4
Db
RESULT 39
US-09-177-249-253
; Sequence 253, Application US/09177249
; Patent No. 6229064
; GENERAL INFORMATION:
  APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
  APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Nucleic Acids That Control Seed and Fruit
  TITLE OF INVENTION: Development in Plants
   FILE REFERENCE: 023070-086120US
   CURRENT APPLICATION NUMBER: US/09/177,249
   CURRENT FILING DATE: 1998-10-22
   EARLIER APPLICATION NUMBER: US 09/071,838
   EARLIER FILING DATE: 1998-05-01
  NUMBER OF SEQ ID NOS: 324
   SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 253
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis sp.
US-09-177-249-253
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+03;
                                 0; Mismatches
                                                                              0:
             3; Conservative
                                                   0;
                                                      Indels
                                                                  0; Gaps
            6 ERK 8
Qу
              | | |
            5 ERK 7
Db
RESULT 40
US-08-476-515A-73
; Sequence 73, Application US/08476515A
; Patent No. 6239270
   GENERAL INFORMATION:
     APPLICANT: Akerstrom, Goran
     APPLICANT: Juhlin, Claes
     APPLICANT: Rask, Lars
                Crumley, Gregg R.
     APPLICANT:
     APPLICANT: Morse, Clarence C.
     APPLICANT: Murray, Edward M.
     APPLICANT: Hjalm, Goran
     TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
     TITLE OF INVENTION: Thereof and DNA Encoding Same
```

```
NUMBER OF SEQUENCES: 84
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Martin Savitzky
      STREET: Rhone-Poulenc Rorer Inc., 500 Arcola Rd.;
      STREET: 3C43,
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
;
      ZIP: 19426-0107
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Compaq PC
      OPERATING SYSTEM: Windows 95
      SOFTWARE: Word 7.0 (Patentin)
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/476,515A
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/344,836
      FILING DATE: 23-NOV-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/SE94/00483
      FILING DATE: 24-MAY-1994
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: SE 9301764-8
      FILING DATE: 24-MAY-1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355D
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 610-454-3816
      TELEFAX: 610-454-3808
   INFORMATION FOR SEQ ID NO:
                              73:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
       TYPE: amino acid
       STRANDEDNESS:
      TOPOLOGY: linear
     MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
     FRAGMENT TYPE: internal
US-08-476-515A-73
                         27.3%; Score 3; DB 3; Length 11;
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                                                                            0;
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           3; Conservative
            4 TRE 6
Qу
              III
Db
            3 TRE 5
RESULT 41
US-08-894-327-4
; Sequence 4, Application US/08894327
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; Patent No. 6245886
; GENERAL INFORMATION:
  APPLICANT: Halazonetis, Thanos
  APPLICANT: Hartwig, Wolfgang
  TITLE OF INVENTION: Peptides and peptidomimetics with
  TITLE OF INVENTION: structural similarity to human p53 that activate p53
  TITLE OF INVENTION: function
  FILE REFERENCE: 2973.19998
  CURRENT APPLICATION NUMBER: US/08/894,327
  CURRENT FILING DATE: 1997-12-04
  EARLIER APPLICATION NUMBER: pctus96/01535
  EARLIER FILING DATE: 1996-02-16
  EARLIER APPLICATION NUMBER: 08/392,542
  EARLIER FILING DATE: 1995-02-16
  NUMBER OF SEQ ID NOS: 35
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Homo sapiens
US-08-894-327-4
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
  Matches
            8 KSK 10
Qу
              \parallel \parallel \parallel \parallel
            8 KSK 10
RESULT 42
US-08-894-327-13
; Sequence 13, Application US/08894327
; Patent No. 6245886
; GENERAL INFORMATION:
  APPLICANT: Halazonetis, Thanos
  APPLICANT: Hartwig, Wolfgang
  TITLE OF INVENTION: Peptides and peptidomimetics with
   TITLE OF INVENTION: structural similarity to human p53 that activate p53
   TITLE OF INVENTION: function
; FILE REFERENCE: 2973.19998
   CURRENT APPLICATION NUMBER: US/08/894,327
   CURRENT FILING DATE: 1997-12-04
   EARLIER APPLICATION NUMBER: pctus96/01535
   EARLIER FILING DATE: 1996-02-16
   EARLIER APPLICATION NUMBER: 08/392,542
   EARLIER FILING DATE: 1995-02-16
   NUMBER OF SEQ ID NOS: 35
  SOFTWARE: FastSEQ for Windows Version 3.0
 SEQ ID NO 13
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Synthetic, modified from Homo sapiens p53
US-08-894-327-13
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27.3%; Score 3; DB 3; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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           8 KSK 10
Qу
             111
           2 KSK 4
Db
RESULT 43
US-09-532-106-12
; Sequence 12, Application US/09532106
; Patent No. 6245895
   GENERAL INFORMATION:
        APPLICANT: SALLBERG, MATTI
        TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                            EXCHANGER
        NUMBER OF SEQUENCES: 23
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: DARBY & DARBY PC
             STREET: 805 Third Avenue
             CITY: New York
              STATE: New York
             COUNTRY: USA
             ZIP: 10022
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/532,106
              FILING DATE: 21-Mar-2000
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/737,085A
              FILING DATE: 27-DEC-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-532-106-12
                        27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
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           2 RKT 4
Qy
             \perp
           2 RKT 4
Dh
RESULT 44
US-09-275-265-3
; Sequence 3, Application US/09275265
; Patent No. 6287761
  GENERAL INFORMATION:
    APPLICANT: DELEYS, ROBERT J
    APPLICANT: POLLET, DIRK
    APPLICANT: MAERTENS, GEERT
;
    APPLICANT: VAN HEUVERSWUN, HUGO
    TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
    TITLE OF INVENTION: ANTIBODIES TO HEPATITIS C VIRUS
    NUMBER OF SEQUENCES: 23
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: NIXON & VANDERHYE P.C.
      STREET: 1100 NORTH GLEBE ROAD
      CITY: ARLINGTON
       STATE: VA
      COUNTRY: USA
      ZIP: 22201
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/09/275,265
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US/08/391,671
       FILING DATE: 21-FEB-1995
       APPLICATION NUMBER: US 07/920,286
       FILING DATE: 14-OCT-1992
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: WO PCT/EP91/02409
       FILING DATE: 13-DEC-1991
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: EP 90124241.2
       FILING DATE: 14-DEC-1990
     ATTORNEY/AGENT INFORMATION:
       NAME: SADOFF, B.J.
       REGISTRATION NUMBER: 36,663
       REFERENCE/DOCKET NUMBER: 1487-5
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 7038164000
       TELEFAX: 7038164100
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
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STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-275-265-3
                          27.3%; Score 3; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                0; Mismatches 0; Indels
                                                                              0;
                                                                 0; Gaps
            3; Conservative
  Matches
            2 RKT 4
QУ
              \perp
            2 RKT 4
Db
RESULT 45
US-08-456-466-100
; Sequence 100, Application US/08456466
; Patent No. 6395873
    GENERAL INFORMATION:
         APPLICANT: Pierschbacher, Michael D.
                    Lukeman, David S.
                    Cheng, Soan
                    Craig, William S.
                    Tschopp, Juerg F.
         TITLE OF INVENTION: METHOD AND COMPOSITION FOR TREATING
                             THROMBOSIS
         NUMBER OF SEQUENCES: 120
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: CAMPBELL & FLORES, LLP
              STREET: 4370 La Jolla Village Drive, Suite 700
              CITY: San Diego
              STATE: California
              COUNTRY: USA
              ZIP: 92122
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/08/456,466
              FILING DATE: 01-Jun-1995
              CLASSIFICATION: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Campbell, Cathryn A.
              REGISTRATION NUMBER: 31,815
              REFERENCE/DOCKET NUMBER: P-LA 1537
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (619) 535-9001
              TELEFAX: (619) 535-8949
    INFORMATION FOR SEQ ID NO: 100:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: circular
         FEATURE:
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LOCATION: 2
             OTHER INFORMATION: /note= "Xaa=(orn)"
        SEQUENCE DESCRIPTION: SEQ ID NO: 100:
US-08-456-466-100
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
           5 RER 7
Qу
             \perp
           9 RER 11
Db
RESULT 46
US-09-311-626B-30
; Sequence 30, Application US/09311626B
; Patent No. 6399347
; GENERAL INFORMATION:
  APPLICANT: Jorgensen, Per Lina
  APPLICANT: Schnorr, Kirk
  APPLICANT: Andersen, Lene No. 6399347boe
  APPLICANT: Schulein, Martin
  APPLICANT: Outtrup, Helle
  TITLE OF INVENTION: No. 6399347el Rhamnogalacturonan Hydrolases
  FILE REFERENCE: 5572.204-US
  CURRENT APPLICATION NUMBER: US/09/311,626B
  CURRENT FILING DATE: 1999-05-13
; PRIOR APPLICATION NUMBER: 0608/98
  PRIOR FILING DATE: 1998-05-01
  PRIOR APPLICATION NUMBER: 60/084,358.
  PRIOR FILING DATE: 1998-05-05
; NUMBER OF SEQ ID NOS: 61
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 30
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Microbial
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: 6
   OTHER INFORMATION: Xaa= Ser or Thr
US-09-311-626B-30
  Query Match
                         27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                                               0; Gaps
          3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                           0;
  Matches
           9 SKD 11
Qу
             Db
           8 SKD 10
RESULT 47
US-09-685-027-4
; Sequence 4, Application US/09685027
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NAME/KEY: Modified-site

;

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; Patent No. 6420118
    GENERAL INFORMATION:
         APPLICANT: Halazonetis, Thanos
                    Hartwig, Wolfgang
         TITLE OF INVENTION: Peptides nad Peptidomimetics with
                             Structural Similarity to Human p53 That Activate
p53
                             Function
;
         NUMBER OF SEQUENCES: 35
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Banner, Birch, McKie & Beckett
              STREET: 1001 G Street, N.W.
              CITY: Washington, D.C.
              STATE: District of Columbia
              COUNTRY: U.S.
              ZIP: 20001
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/685,027
              FILING DATE: 10-Oct-2000
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/392,542
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Posorske, Laurence H.
              REGISTRATION NUMBER: 34,698
              REFERENCE/DOCKET NUMBER: 0486.48439
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202 508-9100
              TELEFAX: 202 508-9299
    INFORMATION FOR SEQ ID NO: 4:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-685-027-4
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
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                                                   0; Indels
  Matches
            8 KSK 10
Qу
              8 KSK 10
Db
RESULT 48
US-09-685-027-13
; Sequence 13, Application US/09685027
; Patent No. 6420118
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```
GENERAL INFORMATION:
         APPLICANT: Halazonetis, Thanos
                    Hartwig, Wolfgang
         TITLE OF INVENTION: Peptides nad Peptidomimetics with
;
                             Structural Similarity to Human p53 That Activate
p53
                             Function
;
         NUMBER OF SEQUENCES: 35
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Banner, Birch, McKie & Beckett
              STREET: 1001 G Street, N.W.
              CITY: Washington, D.C.
              STATE: District of Columbia
              COUNTRY: U.S.
              ZIP: 20001
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/685,027
              FILING DATE: 10-Oct-2000
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/392,542
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Posorske, Laurence H.
              REGISTRATION NUMBER: 34,698
              REFERENCE/DOCKET NUMBER: 0486.48439
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 202 508-9100
              TELEFAX: 202 508-9299
    INFORMATION FOR SEQ ID NO: 13:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 13:
US-09-685-027-13
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
  Matches
          3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
           8 KSK 10
Qy
             111
Db
            2 KSK 4
RESULT 49
US-09-500-124-283
; Sequence 283, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
```

```
APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
;
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
;
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
;
  INFORMATION FOR SEQ ID NO: 283:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 11 amino acids
;
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-283
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                              0; Mismatches 0; Indels 0; Gaps
                                                                           0;
 Matches 3; Conservative
           3 KTR 5
Qу
             9 KTR 11
Db
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RESULT 50 US-08-255-208A-77 ; Sequence 77, Application US/08255208A

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; Patent No. 6440656
  GENERAL INFORMATION:
    APPLICANT: Bolognesi, Dani P.
    APPLICANT: Matthews, Thomas J.
    APPLICANT: Wild, Carl T.
    APPLICANT: Barney, Shawn O.
    APPLICANT: Lambert, Dennis M.
    APPLICANT: Petteway Jr., Stephen R.
    TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV
    TITLE OF INVENTION: TRANSMISSION
    NUMBER OF SEQUENCES: 111
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds LLP
;
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10036
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/255,208A
      FILING DATE: 07-JUN-1994
      CLASSIFICATION:
                       435
    ATTORNEY/AGENT INFORMATION:
      NAME: Coruzzi, Laura A.
      REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7872-010
    TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (212) 790-9090
                (212) 869-9741/8864
      TELEFAX:
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 77:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
;
       STRANDEDNESS:
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
     FEATURE:
      NAME/KEY:
                Modified-site
      LOCATION:
       OTHER INFORMATION: /label= A
      OTHER INFORMATION: /note= "Preceeding this amino acid, there may be an
amino group
       OTHER INFORMATION: an acetyl group, a 9-fluorenylmethoxy-carbonyl group,
a hydroph
       OTHER INFORMATION: group or a macromolecular carrier group."
     FEATURE:
                Modified-site
       NAME/KEY:
       LOCATION:
                 11
       OTHER INFORMATION:
                          /label= B
       OTHER INFORMATION:
                          /note= "Following this amino acid, there may be a
carboxyl grou
```

```
OTHER INFORMATION: an amido group, a hydrophobic group, or a
macromolecular carrie
       OTHER INFORMATION: group."
US-08-255-208A-77
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches 0; Indels
  Matches
                                                                 0; Gaps
                                                                             0;
           7 RKS 9
Qу
             -111
            5 RKS 7
Db
RESULT 51
US-09-839-666-12
; Sequence 12, Application US/09839666
; Patent No. 6469143
    GENERAL INFORMATION:
        APPLICANT: SALLBERG, MATTI
        TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/839,666
              FILING DATE: 19-Apr-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/737,085
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
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SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-839-666-12
                         27.3%; Score 3; DB 4; Length 11;
  Ouery Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
                                                0; Indels
                                                              0; Gaps
                                                                           0;
  Matches
           2 RKT 4
Qу
             +111
           2 RKT 4
Db
RESULT 52
US-09-082-358B-64
; Sequence 64, Application US/09082358B
; Patent No. 6469153
; GENERAL INFORMATION:
; APPLICANT: Goff, Stephen P.
; APPLICANT: Li, Xingquiang
  TITLE OF INVENTION: EIP-1, EIP-3 GENES, ENVELOPE-INTERACTING PROTEINS,
  TITLE OF INVENTION: EIP-1, and EIP-3
  FILE REFERENCE: 0575/54804
  CURRENT APPLICATION NUMBER: US/09/082,358B
; CURRENT FILING DATE: 1998-05-20
; NUMBER OF SEQ ID NOS: 106
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 64
   LENGTH: 11
    TYPE: PRT
    ORGANISM: murine
US-09-082-358B-64
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
                                                                           0;
  Matches
           2 RKT 4
Qу
             \pm 111
Db
           1 RKT 3
RESULT 53
US-09-410-551B-57
; Sequence 57, Application US/09410551B
; Patent No. 6503737
; GENERAL INFORMATION:
  APPLICANT: KOSAN BIOSCIENCES, Inc.
  APPLICANT: REEVES, CHRISTOPHER
  APPLICANT: CHU, DANIEL
  APPLICANT: KHOSLA, CHAITAN
  APPLICANT: SANTI, DANIEL
  APPLICANT: WU, KAI
  TITLE OF INVENTION: POLYKETIDE SYNTHASE ENZYMES AND RECOMBINANT DNA
 TITLE OF INVENTION: CONSTRUCTS THEREFOR
  FILE REFERENCE: 30062-20026.00
  CURRENT APPLICATION NUMBER: US/09/410,551B
; CURRENT FILING DATE: 1999-10-01
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PRIOR APPLICATION NUMBER: US 60/139,650
   PRIOR FILING DATE: 1999-06-17
   PRIOR APPLICATION NUMBER: US 60/123,810
  PRIOR FILING DATE: 1999-03-11
  PRIOR APPLICATION NUMBER: US 60/102,748
  PRIOR FILING DATE: 1998-10-02
  NUMBER OF SEQ ID NOS: 72
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 57
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: Synthetic PKS
    OTHER INFORMATION: synthase fragment
US-09-410-551B-57
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                                                  0; Gaps
                                                                              0;
            3; Conservative 0; Mismatches
                                                   0;
                                                      Indels
            5 RER 7
Qy
              \mathbf{1} \mathbf{1} \mathbf{1}
Db
            5 RER 7
RESULT 54
US-09-101-272G-39
; Sequence 39, Application US/09101272G
; Patent No. 6509445
; GENERAL INFORMATION:
  APPLICANT: Nissin Food Products Co., Ltd.
   TITLE OF INVENTION: CANCEROUS METASTASIS INHIBITOR
  FILE REFERENCE: Q50979
  CURRENT APPLICATION NUMBER: US/09/101,272G
   CURRENT FILING DATE: 1998-07-08
  PRIOR APPLICATION NUMBER: JP 1059/1996
  PRIOR FILING DATE: 1996-01-08
  NUMBER OF SEQ ID NOS: 107
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 39
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: intervening sequence between formula 1 and formula 2
US-09-101-272G-39
  Query Match
                          27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
           3; Conservative 0; Mismatches
                                                                  0; Gaps
  Matches
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                                                                              0;
            8 KSK 10
Qу
              111
Db
            4 KSK 6
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RESULT 55
US-08-445-638-122
; Sequence 122, Application US/08445638
; Patent No. 6521594
  GENERAL INFORMATION:
    APPLICANT: Pierschbacher, Michael D.
    APPLICANT: Cheng, Soan
    APPLICANT: Craig, William S.
    APPLICANT: Tschopp, Juerg F.
    TITLE OF INVENTION: Methods and Composition for Treating
    TITLE OF INVENTION: Thrombosis
    NUMBER OF SEQUENCES: 168
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Campbell and Flores
      STREET: 4370 La Jolla Village Drive, Suite 700
      CITY: San Diego
      STATE: California
      COUNTRY: USA
      ZIP: 92122
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/445,638
      FILING DATE:
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/171,068
      FILING DATE: 20-DEC-1993
      APPLICATION NUMBER: US 08/079,441
      FILING DATE: 18-JUN-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/050,73614
      FILING DATE: 14-APR-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/681,119
      FILING DATE: 05-APR-1991
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/506,444
      FILING DATE: 06-APR-1990
    ATTORNEY/AGENT INFORMATION:
     NAME: Campbell, Cathryn A.
      REGISTRATION NUMBER: 31,815
      REFERENCE/DOCKET NUMBER: P-LA 9829
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (619) 535-9001
       TELEFAX: (619) 535-8949
   INFORMATION FOR SEQ ID NO: 122:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: circular
    FEATURE:
      NAME/KEY: Peptide
      LOCATION: 2
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OTHER INFORMATION: /note= "Xaa = (orn)"
US-08-445-638-122
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                             0;
  Matches
            5 RER 7
Qу
             -111
            9 RER 11
Db
RESULT 56
US-09-941-611-3
; Sequence 3, Application US/09941611
; Patent No. 6576417
    GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
                    POLLET, DIRK
                    MAERTENS, GEERT
                    VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                             ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: NIXON & VANDERHYE P.C.
              STREET: 1100 NORTH GLEBE ROAD
              CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/941,611
              FILING DATE: 30-Aug-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/391,671
              FILING DATE: 1995-02-21
              APPLICATION NUMBER: WO PCT/EP91/02409
              FILING DATE: 13-DEC-1991
              APPLICATION NUMBER: EP 90124241.2
              FILING DATE: 14-DEC-1990
         ATTORNEY/AGENT INFORMATION:
              NAME: SADOFF, B.J.
              REGISTRATION NUMBER: 36,663
              REFERENCE/DOCKET NUMBER: 1487-5
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 7038164000
              TELEFAX: 7038164100
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
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STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-941-611-3
                         27.3%; Score 3; DB 4; Length 11;
 Query Match
                         100.0%; Pred. No. 2.1e+03;
 Best Local Similarity
                                                                0; Gaps
                                                                            0;
           3; Conservative
                              0; Mismatches 0; Indels
 Matches
           2 RKT 4
Qу
             \mathbf{1}
           2 RKT 4
Db
RESULT 57
US-09-265-222-16
; Sequence 16, Application US/09265222
; Patent No. 6579682
; GENERAL INFORMATION:
  APPLICANT: Innerarity, Thomas
  APPLICANT: Boren, Jan
  TITLE OF INVENTION: METHODS AND TOOLS FOR IDENTIFYING
  TITLE OF INVENTION: COMPOUNDS WHICH MODULATE ATHEROSCLEROSIS BY IMPACTING
  TITLE OF INVENTION: LDL-PROTEOGLYCAN BINDING
  FILE REFERENCE: 220002059700
  CURRENT APPLICATION NUMBER: US/09/265,222
  CURRENT FILING DATE: 1999-03-05
   PRIOR APPLICATION NUMBER: US 60/077,618
   PRIOR FILING DATE: 1998-03-10
   NUMBER OF SEQ ID NOS: 25
;
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 16
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
    FEATURE:
    NAME/KEY: MUTAGEN
    LOCATION: 6
    OTHER INFORMATION: Insertion of a single amino acid
US-09-265-222-16
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
             3; Conservative 0; Mismatches 0; Indels 0; Gaps
            4 TRE 6
Qy
              111
Db
            4 TRE 6
RESULT 58
US-09-535-852-1119
; Sequence 1119, Application US/09535852
; Patent No. 6638911
; GENERAL INFORMATION:
```

TYPE: amino acid

```
APPLICANT: Blachuk, Orest W.
  APPLICANT: Symonds, James M.
  APPLICANT: Gour, Barbara J.
  TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
  TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
  FILE REFERENCE: 100086.407C6
  CURRENT APPLICATION NUMBER: US/09/535,852
  CURRENT FILING DATE: 2001-05-21
  NUMBER OF SEQ ID NOS: 2009
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 1119
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Cyclicized modulating agent comprising
   OTHER INFORMATION: desmoglein-2 cell adhesion recognition sequence
US-09-535-852-1119
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                                                            0;
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
            3; Conservative
  Matches
           1 ARK 3
Qу
             -111
            9 ARK 11
Db
RESULT 59
US-09-535-852-1159
; Sequence 1159, Application US/09535852
; Patent No. 6638911
; GENERAL INFORMATION:
   APPLICANT: Blachuk, Orest W.
   APPLICANT: Symonds, James M.
  APPLICANT: Gour, Barbara J.
   TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
   TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
   FILE REFERENCE: 100086.407C6
   CURRENT APPLICATION NUMBER: US/09/535,852
   CURRENT FILING DATE: 2001-05-21
   NUMBER OF SEQ ID NOS: 2009
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1159
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Cyclicized modulating agent comprising
    OTHER INFORMATION: desmoglein-2 cell adhesion recognition sequence
US-09-535-852-1159
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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            3; Conservative 0; Mismatches
                                                                 0; Gaps
                                                0; Indels
  Matches
Qу
            1 ARK 3
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```
RESULT 60
US-09-775-052A-3
; Sequence 3, Application US/09775052A
; Patent No. 6645501
; GENERAL INFORMATION:
  APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/775,052A
  CURRENT FILING DATE: 2001-12-05
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/208,966
   PRIOR FILING DATE: EARLIER FILING DATE: 1998-12-10
   PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/069,012
  PRIOR FILING DATE: EARLIER FILING DATE: 1997-12-10
 NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
    LENGTH: 11
    TYPE: PRT
    ORGANISM: human
US-09-775-052A-3
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
                         100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            3; Conservative
  Matches
            1 ARK 3
Qу
              111
            2 ARK 4
RESULT 61
US-09-790-497A-39
; Sequence 39, Application US/09790497A
; Patent No. 6649735
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
   TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
   TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
   TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
   TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
   TITLE OF INVENTION: CONTAINING THEM
   FILE REFERENCE: 2752-16
   CURRENT APPLICATION NUMBER: US/09/790,497A
   CURRENT FILING DATE: 2001-02-23
   PRIOR APPLICATION NUMBER: 09/576,824
   PRIOR FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
   PRIOR FILING DATE: 1996-09-30
   PRIOR APPLICATION NUMBER: 09/146,028
; PRIOR FILING DATE: 1993-11-22
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PRIOR APPLICATION NUMBER: PCT/EP93/00517
; PRIOR FILING DATE: 1993-03-08
 PRIOR APPLICATION NUMBER: EP 92400598.6
 PRIOR FILING DATE: 1992-03-06
; NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 39
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
US-09-790-497A-39
                         27.3%; Score 3; DB 4; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
           2 RKT 4
Qу
             2 RKT 4
Db
RESULT 62
US-09-576-824A-477
; Sequence 477, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
   TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
                       EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION:
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
   PRIOR APPLICATION NUMBER: 09/146,028
   PRIOR FILING DATE: 1993-11-22
   PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
   PRIOR APPLICATION NUMBER: EP 92400598.6
   PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
  SEQ ID NO 477
   LENGTH: 11
    TYPE: PRT
;
    ORGANISM: Hepatitis C virus
    FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
```

```
NAME/KEY: VARIANT
    LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-477
                          27.3%; Score 3; DB 4; Length 11;
 Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                                   0;
                                0; Mismatches
                                                       Indels
                                                                 0; Gaps
                                                                             0;
 Matches
           3; Conservative
            2 RKT 4
Qу
              111
            7 RKT 9
Db
RESULT 63
US-09-576-824A-478
; Sequence 478, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
   CURRENT APPLICATION NUMBER: US/09/576,824A
   CURRENT FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
   PRIOR FILING DATE: 1993-11-22
   PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
   PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 478
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Hepatitis C virus
    FEATURE:
   NAME/KEY: VARIANT
    LOCATION: (1)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, amino group, or chemically modified
    OTHER INFORMATION: amino terminus
    NAME/KEY: VARIANT
    LOCATION: (11)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
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27.3%; Score 3; DB 4; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                             0; Mismatches 0; Indels 0; Gaps 0;
           3; Conservative
           2 RKT 4
Qу
             111
           6 RKT 8
Db
RESULT 64
US-09-576-824A-479
; Sequence 479, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
; TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
; TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
   FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 08/723,425
; PRIOR FILING DATE: 1996-09-30
 PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
  PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
   SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 479
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-479
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
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2 RKT 4
Qу
             -111
            5 RKT 7
Db
RESULT 65
US-09-576-824A-480
; Sequence 480, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
   FILE REFERENCE: 2752-11
   CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
   PRIOR APPLICATION NUMBER: 08/723,425
   PRIOR FILING DATE: 1996-09-30
   PRIOR APPLICATION NUMBER: 09/146,028
   PRIOR FILING DATE: 1993-11-22
   PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
   PRIOR APPLICATION NUMBER: EP 92400598.6
   PRIOR FILING DATE: 1992-03-06
   NUMBER OF SEQ ID NOS: 600
   SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 480
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Hepatitis C virus
    FEATURE:
   NAME/KEY: VARIANT
    LOCATION: (1)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, amino group, or chemically modified
    OTHER INFORMATION: amino terminus
    NAME/KEY: VARIANT
    LOCATION: (11)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-480
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
             3; Conservative 0; Mismatches
                                                                             0;
                                                   0;
                                                      Indels
                                                                 0; Gaps
            2 RKT 4
Qу
```

 \perp

4 RKT 6

Db

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RESULT 66
US-09-576-824A-481
; Sequence 481, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
  PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
  PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 481
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
    OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-481
  Query Match
                          27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+03;
                                                                  0; Gaps
 Matches
            3; Conservative 0; Mismatches
                                                   0; Indels
Qv
            2 RKT 4
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
           3 RKT 5
RESULT 67
US-09-576-824A-546
; Sequence 546, Application US/09576824A
; Patent No. 6667387
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; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
  PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
;
  PRIOR FILING DATE: 1993-11-22
   PRIOR APPLICATION NUMBER: PCT/EP93/00517
   PRIOR FILING DATE: 1993-03-08
   PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 546
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
    OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-546
                          27.3%; Score 3; DB 4; Length 11;
  Query Match
                         100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                                                             0;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
  Matches
            7 RKS 9
Qy
              111
Db
            8 RKS 10
RESULT 68
US-09-576-824A-547
; Sequence 547, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
  APPLICANT: De Leys, Robert
   TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
   TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
; TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
```

```
TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
TMPORTANT
  TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
  PRIOR APPLICATION NUMBER: 08/723,425
; PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
; PRIOR FILING DATE: 1993-03-08
 PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
; NUMBER OF SEQ ID NOS: 600
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 547
   LENGTH: 11
   TYPE: PRT
;
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
;
   LOCATION: (1)
;
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-547
                         27.3%; Score 3; DB 4; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
           7 RKS 9
Qу
              \perp \mid \cdot \mid \cdot \mid
            7 RKS 9
Db
RESULT 69
US-09-576-824A-548
; Sequence 548, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
 APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
  TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
  TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
; TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
; FILE REFERENCE: 2752-11
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CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
  PRIOR APPLICATION NUMBER: 08/723,425
  PRIOR FILING DATE: 1996-09-30
  PRIOR APPLICATION NUMBER: 09/146,028
  PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
  PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
; PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 548
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
; · OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
    OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-548
  Query Match
                         27.3%; Score 3; DB 4; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0:
            7 RKS 9
Qу
             Db
            6 RKS 8
RESULT 70
US-09-576-824A-549
; Sequence 549, Application US/09576824A
; Patent No. 6667387
; GENERAL INFORMATION:
; APPLICANT: De Leys, Robert
  TITLE OF INVENTION: PROCESS FOR THE DETERMINATION OF PEPTIDES CORRESPONDING
   TITLE OF INVENTION: TO IMMUNOLOGICALLY IMPORTANT EPITOPES AND THEIR USE IN
  TITLE OF INVENTION: A PROCESS FOR DETERMINATION OF ANTIBODIES OF
   TITLE OF INVENTION: BIOTINYLATED PEPTIDES CORRESPONDING TO IMMUNOLOGICALLY
IMPORTANT
   TITLE OF INVENTION: EPITOPES, A PROCESS FOR PREPARING THEM AND COMPOSITIONS
  TITLE OF INVENTION: CONTAINING THEM
  FILE REFERENCE: 2752-11
  CURRENT APPLICATION NUMBER: US/09/576,824A
  CURRENT FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 08/723,425
 PRIOR FILING DATE: 1996-09-30
; PRIOR APPLICATION NUMBER: 09/146,028
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PRIOR FILING DATE: 1993-11-22
  PRIOR APPLICATION NUMBER: PCT/EP93/00517
  PRIOR FILING DATE: 1993-03-08
  PRIOR APPLICATION NUMBER: EP 92400598.6
  PRIOR FILING DATE: 1992-03-06
  NUMBER OF SEQ ID NOS: 600
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 549
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Hepatitis C virus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (1)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, amino group, or chemically modified
   OTHER INFORMATION: amino terminus
   NAME/KEY: VARIANT
   LOCATION: (11)
   OTHER INFORMATION: Xaa = modified site : when present, represents an
   OTHER INFORMATION: amino acid, OH-group, NH2-group, or a linkage
   OTHER INFORMATION: involv-ing these two groups
US-09-576-824A-549
                         27.3%; Score 3; DB 4; Length 11;
 Query Match
  Best Local Similarity
                         100.0%; Pred. No. 2.1e+03;
 Matches
          3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           7 RKS 9
Qу
              111
           5 RKS 7
Dh
RESULT 71
PCT-US91-08328-13
; Sequence 13, Application PC/TUS9108328
   GENERAL INFORMATION:
    APPLICANT: Ruggeri, Zaverio M.
    APPLICANT: Houghten, Richard A.
    TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
    TITLE OF INVENTION: OF ADHESION MOLECULES
    NUMBER OF SEQUENCES:
                          47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
       STREET:
               345 Park Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
       ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
       FILING DATE: 19911107
```

```
CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 07/610,363
       FILING DATE: 07-NOV-1990
     ATTORNEY/AGENT INFORMATION:
       NAME: Moroz, Eugene
       REGISTRATION NUMBER:
                           25,237
;
       REFERENCE/DOCKET NUMBER: 1198 4079PC
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 758-4800
       TELEFAX: (212)751-6849
       TELEX: 421792
   INFORMATION FOR SEQ ID NO: 13:
     SEQUENCE CHARACTERISTICS:
;
       LENGTH: 11 amino acids
. ;
       TYPE: AMINO ACID
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
;
     ANTI-SENSE: NO
;
     FEATURE:
;
       NAME/KEY: Cross-links
;
       LOCATION: 6..>11
       OTHER INFORMATION: /note= "Sequence linked by
       OTHER INFORMATION: interchain amide bond at Lys residue with Glu
       OTHER INFORMATION: residue on Arg5-Glu-Ser-Arg-Gly-Asp-Val sequence"
     PUBLICATION INFORMATION:
       DOCUMENT NUMBER: US 4,683,291
       FILING DATE: 28-OCT-1985
       PUBLICATION DATE: 28-JUL-1987
     PUBLICATION INFORMATION:
       DOCUMENT NUMBER: US B1 4,683,291
       FILING DATE: 28-OCT-1985
       PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-13
                          27.3%; Score 3; DB 5; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.1e+03;
            3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            7 RKS 9
Qу
              \Pi\Pi
Db
            5 RKS 7
RESULT 72
PCT-US91-08328-14
 ; Sequence 14, Application PC/TUS9108328
   GENERAL INFORMATION:
     APPLICANT: Ruggeri, Zaverio M.
     APPLICANT: Houghten, Richard A.
     TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
     TITLE OF INVENTION: OF ADHESION MOLECULES
     NUMBER OF SEQUENCES: 47
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
       STREET: 345 Park Avenue
```

```
CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
      FILING DATE: 19911107
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/610,363
      FILING DATE: 07-NOV-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Moroz, Eugene
      REGISTRATION NUMBER: 25,237
      REFERENCE/DOCKET NUMBER: 1198 4079PC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212)758-4800
      TELEFAX: (212)751-6849
      TELEX: 421792
  INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FEATURE:
      NAME/KEY: Cross-links
      LOCATION: 5..>11
      OTHER INFORMATION: /note= "Sequence linked by
      OTHER INFORMATION: interchain amide bond at Glu residue with Lys
      OTHER INFORMATION: residue on Arg4-Lys-Arg-Ser-Arg-Gly-Asp-Val
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 28-JUL-1987
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US B1 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-14
 Query Match
                         27.3%; Score 3; DB 5; Length 11;
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
                                                                0; Gaps
            3; Conservative 0; Mismatches 0; Indels
                                                                            0;
 Matches
           5 RER 7
Qу
             \mathbf{I}
Db
           4 RER 6
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RESULT 73
PCT-US91-08328-16
 Sequence 16, Application PC/TUS9108328
  GENERAL INFORMATION:
    APPLICANT: Ruggeri, Zaverio M.
    APPLICANT: Houghten, Richard A.
    TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
    TITLE OF INVENTION: OF ADHESION MOLECULES
    NUMBER OF SEQUENCES:
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
               345 Park Avenue
      STREET:
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
      FILING DATE: 19911107
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/610,363
      FILING DATE: 07-NOV-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Moroz, Eugene
      REGISTRATION NUMBER:
                            25,237
      REFERENCE/DOCKET NUMBER: 1198 4079PC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 758-4800
      TELEFAX: (212) 751-6849
      TELEX: 421792
   INFORMATION FOR SEQ ID NO:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FEATURE:
      NAME/KEY: Cross-links
      LOCATION: 4..>11
      OTHER INFORMATION:
                         /note= "Sequence linked by
      OTHER INFORMATION:
                          interchain amide bond at Glu residue with Lys
      OTHER INFORMATION:
                          residue on Arg3-Lys-Arg2-Ser-Arg-Gly-Asp-Val
     PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 28-JUL-1987
     PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US B1 4,683,291
       FILING DATE: 28-OCT-1985
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PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-16
                         27.3%; Score 3; DB 5; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.1e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
           5 RER 7
Qy
             \pm 111
           3 RER 5
Db
RESULT 74
PCT-US91-08328-18
; Sequence 18, Application PC/TUS9108328
  GENERAL INFORMATION:
    APPLICANT: Ruggeri, Zaverio M.
    APPLICANT: Houghten, Richard A.
    TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
    TITLE OF INVENTION: OF ADHESION MOLECULES
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
      STREET: 345 Park Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
      FILING DATE: 19911107
      CLASSIFICATION: 514
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/610,363
      FILING DATE: 07-NOV-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Moroz, Eugene
      REGISTRATION NUMBER: 25,237
      REFERENCE/DOCKET NUMBER: 1198 4079PC
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 758-4800
      TELEFAX: (212) 751-6849
      TELEX: 421792
   INFORMATION FOR SEQ ID NO: 18:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FEATURE:
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NAME/KEY: Cross-links
;
                 3..>11
      LOCATION:
      OTHER INFORMATION: /note= "Sequence linked by
      OTHER INFORMATION: interchain amide bond at residue Glu with Lys
      OTHER INFORMATION: residue on Arg2-Lys-Arg3-Ser-Arg-Gly-Asp-Val
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 28-JUL-1987
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US B1 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-18
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Qу
             111
           2 RER 4
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RESULT 75
PCT-US91-08328-20
; Sequence 20, Application PC/TUS9108328
  GENERAL INFORMATION:
    APPLICANT: Ruggeri, Zaverio M.
    APPLICANT: Houghten, Richard A.
    TITLE OF INVENTION: PEPTIDES THAT INHIBIT PLATELET BINDING
    TITLE OF INVENTION: OF ADHESION MOLECULES
    NUMBER OF SEQUENCES: 47
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Eugene Moroz, MORGAN & FINNEGAN
      STREET: 345 Park Avenue
      CITY: New York
      STATE: New York
      COUNTRY: USA
      ZIP: 10154
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US91/08328
      FILING DATE: 19911107
      CLASSIFICATION: 514
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 07/610,363
       FILING DATE: 07-NOV-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: Moroz, Eugene
       REGISTRATION NUMBER:
                            25,237
       REFERENCE/DOCKET NUMBER: 1198 4079PC
     TELECOMMUNICATION INFORMATION:
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TELEPHONE: (212) 758-4800
;
      TELEFAX: (212) 751-6849
      TELEX: 421792
  INFORMATION FOR SEQ ID NO: 20:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: AMINO ACID
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    FEATURE:
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      LOCATION: 2..>11
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      OTHER INFORMATION: interchain amide bond at residue Glu with Lys
      OTHER INFORMATION: residue on Arg-Lys-Arg4-Ser-Arg-Gly-Asp-Val"
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 28-JUL-1987
    PUBLICATION INFORMATION:
      DOCUMENT NUMBER: US B1 4,683,291
      FILING DATE: 28-OCT-1985
      PUBLICATION DATE: 03-JUL-1990
PCT-US91-08328-20
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Qу
             +111
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Db
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Search completed: April 8, 2004, 15:52:11

Job time : 12.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 8, 2004, 15:30:07; Search time 8.61538 Seconds

(without alignments)

122.816 Million cell updates/sec

Title: US-09-787-443A-14

Perfect score: 11

Sequence: 1 ARKTRERKSKD 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size:

Total number of hits satisfying chosen parameters: 226

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database: PIR_78:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	3	27.3	11	1	EOOCC	eledoisin - curled
2	3	27.3	11	1	EOOC	eledoisin - musky
3	3	27.3	11	2	B41835	translation elonga
4	3	27.3	11	2	G61497	seed protein ws-23
5	3	27.3	11	2	PU0034	dextransucrase (EC
6	2	18.2	11	2	s32575	ribosomal protein
7	2	18.2	11	2	A40693	transgelin - sheep
8	2	18.2	11	2	A26930	ermG leader peptid
9	2	18.2	11	2	YHRT	morphogenetic neur
10	2	18.2	11	2	YHHU	morphogenetic neur
11	2	18.2	11	2	YHBO	morphogenetic neur
12	2	18.2	11	2	YHXAE	morphogenetic neur
13	2	18.2	11	2	YHJFHY	morphogenetic neur
	_					1 3

14	2	18.2	11	2	B26744	megascoliakinin -
15	2	18.2	11	2	D61033	ranatachykinin D -
16	2	18.2	11	2	S42449	ant1 protein - pha
17	2	18.2	11	2	JQ0395	hypothetical prote
18	2	18.2	11	2	S66606	quinoline 2-oxidor
19	2	18.2	11	2	PC2372	58K heat shock pro
	2	18.2	11	2	PT0081	protein QA300023 -
20						
21	2	18.2	11	2	S19775	wound-induced prot
22	2	18.2	11	2	A34135	DNA-binding protei
23	2	18.2	11	2	E57789	gallbladder stone
24	2	18.2	11	2	I52980	glucocerebrosidase
25	2	18.2	11	2	154193	Rhesus blood group
26	2	18.2	11	2	s68637	acetylcholinestera
27	2	18.2	11	2	s78765	ribosomal protein
28	2	18.2	11	2	\$54347	tubulin beta chain
29	2	18.2	11	2	A14454	6-phosphofructokin
30	2	18.2	11	2	PH1632	Ig H chain V-D-J r
31	2	18.2	11	2	PH1600	Ig H chain V-D-J r
32	2	18.2	11	2	PH1583	Ig H chain V-D-J r
33	2	18.2	11	2	PH1584	Ig H chain V-D-J r
34	2	18.2	11	2	PD0442	NIPSNAP2 protein -
35	2	18.2	11	2	PT0214	T-cell receptor be
3 <i>5</i>	2	18.2	11	2	PD0441	translation elonga
	2		11	2	PH0939	T-cell receptor be
37		18.2		2	PH0903	T-cell receptor be
38	2	18.2	11	2		cytochrome-c oxida
39	2	18.2	11		T12264	-
40	2	18.2	11	2	T12253	cytochrome-c oxida
41	2	18.2	11	2	T12244	cytochrome-c oxida
42	2	18.2	11	2	T12248	cytochrome-c oxida
43	2	18.2	11	2	A48973	glucoamylase A1 (E
44	2	18.2	11	2	S60294	tubulin 2 beta-3 c
45	2	18.2	11	4	PC2124	aminotransferase c
46	1	9.1	11	1	XAVIBH	bradykinin-potenti
47	1	9.1	11	1	XASNBA	bradykinin-potenti
48	1	9.1	11	1	ECLQ2M	tachykinin II - mi
49	1	9.1	11	1	SPHO	substance P - hors
50	1	9.1	11	1	A60654	substance P - guin
51	1	9.1	11	1	${\tt GMROL}$	leucosulfakinin -
52	1	9.1	11	1	LFTWWE	probable trpEG lea
53	1	9.1	11	2	S66196	alcohol dehydrogen
54	1	9.1	11	2	G42762	proteasome endopep
55	1	9.1	11	2	S68392	H+-transporting tw
56	$\bar{1}$	9.1	11	2	A33917	dihydroorotase (EC
57	1	9.1	11	2	B49164	chromogranin-B - r
58	1	9.1	11	2	JN0023	substance P - chic
59	1	9.1	11	2	A38841	rhodopsin homolog
	$\overset{1}{1}$		11	2	PQ0682	photosystem I 17.5
60		9.1		2		parasporal crystal
61	1	9.1	11		S00616	
62	1	9.1	11	2	C53652	rhlR protein - Pse
63	1	9.1	11	2	S09074	cytochrome P450-4b
64	1	9.1	11	2	A57458	gene Gax protein -
65	1	9.1	11	2	D60409	kassinin-like pept
66	1	9.1	11	2	F60409	substance P-like p
67	1	9.1	11	2	E60409	substance P-like p
68	1	9.1	11	2	A61365	phyllokinin - Rohd
69	1	9.1	11	2	S23308	substance P - rain
70	1	9.1	11	2	s23306	substance P - Atla

71	1	9.1	11	2	B60409	kassinin-like pept
72	1	9.1	1.1	2	C60409	kassinin-like pept
73	1	9.1	11	2	S07203	uperolein – frog (
74	1	9.1	11	2	s07207	Crinia-angiotensin
75	1	9.1	11	2	S07201	physalaemin – frog
76	1	9.1	11	2	A61033	ranatachykinin A -
77	1	9.1	11	2	B58501	24K kidney and bla
78	1.	9.1	11	2	D58502	27K bile and gallb
79	1	9.1	11	2	A58502	38K kidney stone p
80	1	9.1	11	2	C58501	42K bile stone pro
81	1	9.1	11	2	F58501	43.5K bile stone p
82	1	9.1	11	2	PQ0231	beta-glucosidase (
83	1	9.1	11	2	S58244	pyrroloquinoline q
84	1	9.1	11	2	S04875	nifS protein - Bra
85	1	9.1	11	2	I41138	acetyl ornithine d
86	1	9.1	11	2	S42587	celF protein - Esc
87	1	9.1	11	2	S35490	type II site-speci
88	1	9.1	11	2	S21127	precorrin methyltr
89	1	9.1	11	2	S70720	trigger factor hom
90	1	9.1	11	2	s33782	acetolactate synth
91	1	9.1	11	2	в39853	LuxC protein - Pho
92	1	9.1	11	2	A58838	hemolysin - Porphy
93	1 -	9.1	11	2	B43669	hypothetical prote
94	1	9.1	11	2	E60691	phycobilisome 8K l
95	1	9.1	11	2	D60691	phycobilisome 9K l
96	1	9.1	11	2	S14087	parasporal crystal
97	1	9.1	11	2	A44755	20alpha-hydroxyste
98	1	9.1	11	2	E41476	probable antigen 5
99	1	9.1	11	2	A55149	tetracenomycin A2
100	1	9.1	11	2	S19301	endo-1,4-beta-xyla

ALIGNMENTS

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C;Species: Eledone cirrosa, Ozaena cirrosa (curled octopus)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 20-Mar-1998
C;Accession: B01561; A01561
R;Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A;Title: The isolation and amino acid sequence of eledoisin, the active endecapeptide of the posterior salivary glands of Eledone.
A;Reference number: A01561
A;Accession: B01561
A;Molecule type: protein
A;Residues: 1-11 <ANA>
C;Superfamily: substance P precursor
C;Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland; secretagogue; vasodilator; venom
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F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental F;11/Modified site: amidated carboxyl end (Met) #status experimental

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Query Match 27.3%; Score 3; DB 1; Length 11; Best Local Similarity 100.0%; Pred. No. 2.6e+03;
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RESULT 1 EOOCC

eledoisin - curled octopus

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 Matches
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Qу
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eledoisin - musky octopus
C; Species: Eledone moschata, Ozaena moschata (musky octopus)
C;Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 20-Mar-1998
C; Accession: A01561
R; Anastasi, A.; Erspamer, V.
Arch. Biochem. Biophys. 101, 56-65, 1963
A; Title: The isolation and amino acid sequence of eledoisin, the active
endecapeptide of the posterior salivary glands of Eledone.
A; Reference number: A01561
A; Accession: A01561
A: Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone; pyroglutamic acid; salivary gland;
secretagogue; vasodilator; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
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             3; Conservative
            9 SKD 11
Qy
              \mathbf{I}
Db
            3 SKD 5
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translation elongation factor EF-G homolog - Bacillus subtilis (fragment)
C; Species: Bacillus subtilis
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text change 05-Dec-1997
C; Accession: B41835
R; Mitchell, C.; Morris, P.W.; Vary, J.C.
J. Bacteriol. 174, 2474-2477, 1992
A; Title: Identification of proteins phosphorylated by ATP during sporulation of
Bacillus subtilis.
A; Reference number: A41835; MUID: 92210489; PMID: 1556067
A; Accession: B41835
A; Molecule type: protein
A; Residues: 1-11 <MIT>
A; Note: this protein is phosphorylated during stationary phase but not during
exponential growth
C; Keywords: phosphoprotein
                          27.3%; Score 3; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.6e+03;
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3 KTR 5
Qу
              111
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Db
RESULT 4
G61497
seed protein ws-23 - winged bean (fragment)
C; Species: Psophocarpus tetragonolobus (winged bean)
C;Date: 07-Oct-1994 #sequence revision 07-Oct-1994 #text change 07-Oct-1994
C; Accession: G61497
R; Hirano, H.
J. Protein Chem. 8, 115-130, 1989
A; Title: Microsequence analysis of winged bean seed proteins electroblotted from
two-dimensional gel.
A; Reference number: A61491; MUID: 89351606; PMID: 2765119
A; Accession: G61497
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <HIR>
C; Keywords: glycoprotein; seed
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Qу
              \mathbf{I}
            2 KSK 4
RESULT 5
PU0034
dextransucrase (EC 2.4.1.5) - Streptococcus bovis (fragment)
C; Species: Streptococcus bovis
C; Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 18-Sep-1996
C; Accession: PU0034
R; Uezono, Y.; Tsumori, H.; Mukasa, H.
submitted to JIPID, October 1993
A; Description: Purification and properties of glucosyltransferase synthesizing
1,6-alpha-D-glucan from Streptococcus bovis.
A; Reference number: PU0034
A; Accession: PU0034
A; Molecule type: protein
A; Residues: 1-11 <UEZ>
A; Experimental source: ATCC 9809
C; Keywords: glycosyltransferase; hexosyltransferase
  Query Match
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                          100.0%; Pred. No. 2.6e+03;
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            4 TRE 6
Qу
              Db
            9 TRE 11
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RESULT 6
s32575
ribosomal protein S2, plastid - squawroot plastid (fragment)
C; Species: plastid Conopholis americana (squawroot)
C;Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 13-Aug-1999
C; Accession: S32575
R; Taylor, G.W.; Wolfe, K.H.; Morden, C.W.; dePamphilis, C.W.; Palmer, J.D.
Curr. Genet. 20, 515-518, 1991
A; Title: Lack of a functional plastid tRNA(Cys) gene is associated with loss of
photosynthesis in a lineage of parasitic plants.
A; Reference number: S32575; MUID: 92145776; PMID: 1723664
A; Accession: S32575
A;Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <TAY>
A;Cross-references: EMBL:X64567; NID:g11275; PIDN:CAA45868.1; PID:g11276
C; Genetics:
A; Gene: rps2
A; Genome: plastid
C; Superfamily: Escherichia coli ribosomal protein S2
C; Keywords: plastid; protein biosynthesis; ribosome
                          18.2%; Score 2; DB 2; Length 11;
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                          100.0%; Pred. No. 2.8e+04;
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                                                 0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            4 TR 5
Qу
              11
            2 TR 3
Db
RESULT 7
A40693
transgelin - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 03-May-1994 #sequence revision 03-May-1994 #text change 31-Oct-1997
C; Accession: A40693
R; Shapland, C.; Hsuan, J.J.; Totty, N.F.; Lawson, D.
J. Cell Biol. 121, 1065-1073, 1993
A; Title: Purification and properties of transgelin: a transformation and shape
change sensitive actin-gelling protein.
A; Reference number: A40693; MUID: 93273790; PMID: 8501116
A; Accession: A40693
A; Molecule type: protein
A; Residues: 1-11 <SHA>
A; Experimental source: aorta
C; Comment: This protein gels actin and is down regulated by transformation or
loss of cell adherence in culture.
C; Superfamily: smooth muscle protein SM22; calponin repeat homology; smooth
muscle protein SM22 homology
C; Keywords: actin binding; cytoskeleton
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                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
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                                                                  0; Gaps
                                                                              0:
  Matches
             2; Conservative
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5 RE 6
Qy
              \perp
            9 RE 10
Db
RESULT 8
A26930
ermG leader peptide 1 - Bacillus sphaericus
C; Species: Bacillus sphaericus
C;Date: 08-Mar-1989 #sequence_revision 08-Mar-1989 #text change 24-Sep-1999
C; Accession: A26930
R; Monod, M.; Mohan, S.; Dubnau, D.
J. Bacteriol. 169, 340-350, 1987
A; Title: Cloning and analysis of ermG, a new macrolide-lincosamide-streptogramin
B resistance element from Bacillus sphaericus.
A; Reference number: A91840; MUID: 87083389; PMID: 3025178
A; Accession: A26930
A; Molecule type: DNA
A; Residues: 1-11 <MON>
A;Cross-references: GB:M15332; NID:q142881; PIDN:AAA22417.1; PID:q142882
C; Superfamily: unassigned leader peptides
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             2; Conservative
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                                                   0; Indels
            9 SK 10
Qу
              5 SK 6
RESULT 9
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: A01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator by the authors, because it induced head-specific growth
and differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
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C; Superfamily: unassigned animal peptides

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C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide;
pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
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            2; Conservative
 Matches
            9 SK 10
Qу
              6 SK 7
Db
RESULT 10
YHHU
morphogenetic neuropeptide - human
C; Species: Homo sapiens (man)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID:82035850; PMID:7290191
A; Accession: B01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
                               0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
  Matches
            2; Conservative
            9 SK 10
QУ
              11
            6 SK 7
Db
RESULT 11
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
```

```
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C: Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A:Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F:1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
            2: Conservative
                               0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                               0;
  Matches
            9 SK 10
Qy
              \mathbf{I}
            6 SK 7
RESULT 12
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
```

```
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            2; Conservative
            9 SK 10
Qу
              11
            6 SK 7
RESULT 13
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hvdra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                                                  0; Gaps
                                                                              0;
             2; Conservative
                                0; Mismatches
                                                   0; Indels
            9 SK 10
Qу
              \perp
            6 SK 7
Db
```

```
RESULT 14
B26744
megascoliakinin - garden dagger wasp
N; Alternate names: 6-Thr-bradykinin-Lys-Ala
C:Species: Megascolia flavifrons (garden dagger wasp)
C;Date: 08-Mar-1989 #sequence revision 08-Mar-1989 #text change 18-Aug-2000
C; Accession: B26744; A28609
R; Yasuhara, T.; Mantel, P.; Nakajima, T.; Piek, T.
Toxicon 25, 527-535, 1987
A; Title: Two kinins isolated from an extract of the venom reservoirs of the
solitary wasp Megascolia flavifrons.
A; Reference number: A94322; MUID: 87293024; PMID: 3617088
A; Accession: B26744
A; Molecule type: protein
A; Residues: 1-11 <YAS>
R; Nakajima, T.; Piek, T.; Yashuara, T.; Mantel, P.
Toxicon 26, 34, 1988
A; Title: Two kinins isolated from the venom of Megascolia flavifrons.
A; Reference number: A28609
A; Accession: A28609
A; Molecule type: protein
A; Residues: 1-11 < NAK>
C; Superfamily: unassigned animal peptides
C; Keywords: bradykinin; presynaptic neurotoxin; venom
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
            2; Conservative 0; Mismatches
                                                    0;
                                                       Indels
                                                                   0; Gaps
                                                                               0;
 Matches
            2 RK 3
Qу
            9 RK 10
Db
RESULT 15
D61033
ranatachykinin D - bullfrog
C; Species: Rana catesbeiana (bullfrog)
C;Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 18-Aug-2000
C; Accession: D61033; JE0429
R; Kangawa, K.; Kozawa, H.; Hino, J.; Minamino, N.; Matsuo, H.
Regul. Pept. 42(Suppl.1), S12, 1992
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: A61033
A; Accession: D61033
A; Molecule type: protein
A; Residues: 1-11 <KAN>
R; Kozawa, H.; Hino, J.; Minamino, N.; Kangawa, K.; Matsuo, H.
Biochem. Biophys. Res. Commun. 177, 588-595, 1991
A; Title: Isolation of four novel tachykinins from frog (Rana catesbeiana) brain
and intestine.
A; Reference number: JE0426; MUID: 91254337; PMID: 2043143
A; Accession: JE0429
A; Molecule type: protein
A; Residues: 1-11 <KOZ>
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C; Keywords: amidated carboxyl end; neuropeptide
F:11/Modified site: amidated carboxyl end (Met) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
  Matches
            6 ER 7
Qу
              11
            5 ER 6
Db
RESULT 16
S42449
ant1 protein - phage P7
C; Species: phage P7
C; Date: 07-Sep-1994 #sequence revision 26-May-1995 #text_change 08-Oct-1999
C; Accession: S42449
R; Citron, M.; Schuster, H.
Cell 62, 591-598, 1990
A; Title: The c4 repressors of bacteriophages P1 and P7 are antisense RNAs.
A; Reference number: S42448; MUID: 90335968; PMID: 1696181
A; Accession: S42449
A; Status: preliminary; translation not shown
A; Molecule type: DNA
A; Residues: 1-11 <CIT>
A; Cross-references: EMBL: M35139; NID: g215705; PIDN: AAA32437.1; PID: g215707
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
  Matches
             2; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            4 TR 5
              11
Dh
            7 TR 8
RESULT 17
J00395
hypothetical protein (nodB 3' region) - Azorhizobium caulinodans
N; Alternate names: hypothetical 1.4K protein
C; Species: Azorhizobium caulinodans
A; Note: host Sesbania rostrata
C; Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 03-Feb-1994
C; Accession: JQ0395
R; Goethals, K.; Gao, M.; Tomekpe, K.; Van Montagu, M.; Holsters, M.
Mol. Gen. Genet. 219, 289-298, 1989
A; Title: Common nodABC genes in Nod locus 1 of Azorhizobium caulinodans:
nucleotide sequence and plant-inducible expression.
A; Reference number: JQ0393; MUID: 90136519; PMID: 2615763
A; Accession: JQ0395
A; Molecule type: DNA
A; Residues: 1-11 <GOE>
A; Cross-references: GB:L18897
A; Experimental source: strain ORS571
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C; Superfamily: unassigned animal peptides

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18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
                                0; Mismatches
                                                   0: Indels
                                                                 0; Gaps
                                                                              0;
            2; Conservative
            1 AR 2
Qу
              \perp
           10 AR 11
Db
RESULT 18
S66606
quinoline 2-oxidoreductase alpha chain - Comamonas testosteroni (fragment)
C; Species: Comamonas testosteroni
C;Date: 15-Feb-1997 #sequence revision 13-Mar-1997 #text change 17-Mar-1999
C; Accession: S66606
R; Schach, S.; Tshisuaka, B.; Fetzner, S.; Lingens, F.
Eur. J. Biochem. 232, 536-544, 1995
A; Title: Quinoline 2-oxidoreductase and 2-oxo-1, 2-dihydroquinoline 5, 6-
dioxygenase from Comamonas testosteroni 63. The first two enzymes in quinoline
and 3-methylquinoline degradation.
A; Reference number: S66606; MUID: 96035889; PMID: 7556204
A:Accession: S66606
A; Molecule type: protein
A; Residues: 1-11 <SCH>
A; Experimental source: strain 63
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            2; Conservative
            8 KS 9
Qу
              | |
Db
            2 KS 3
RESULT 19
PC2372
58K heat shock protein groEL [similarity] - Bacillus cereus (strain ts-4)
(fragment)
C; Species: Bacillus cereus
C;Date: 20-Apr-2000 #sequence revision 20-Apr-2000 #text change 20-Apr-2000
C; Accession: PC2372
R; Matsuno, K.; Miyamoto, T.; Yamaguchi, K.; Sayed, M.A.; Kajiwara, T.; Hatano,
s.
Biosci. Biotechnol. Biochem. 59, 231-235, 1995
A; Title: Identification of DNA-binding proteins changed after induction of
sporulation in Bacillus cereus.
A; Reference number: PC2369; MUID: 95218265; PMID: 7766022
A; Accession: PC2372
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MAS>
C; Keywords: heat shock; molecular chaperone; stress-induced protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
             2; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
```

```
| | |
Db
           10 AR 11
RESULT 20
PT0081
protein QA300023 - Arabidopsis thaliana (fragment)
C; Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 07-Feb-1996 #sequence_revision 19-Apr-1996 #text change 24-Nov-1999
C; Accession: PT0081
R;Tsugita, A.; Kamo, M.; Kawakami, M.; Ohki, Y.
submitted to JIPID, December 1995
A; Description: Two dimensional electrophoresis of plant proteins and
standardization of the gel patterns.
A; Reference number: PN0173
A; Accession: PT0081
A; Molecule type: protein
A; Residues: 1-11 <TSU>
A; Experimental source: Leaf
C; Keywords: acetylated amino end
F;1/Modified site: acetylated amino end (Ser) #status experimental
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                       Indels
                                                    0;
                                                                  0; Gaps
                                                                               0;
  Matches
            2; Conservative
            9 SK 10
Qу
              \Pi
            1 SK 2
Db
RESULT 21
s19775
wound-induced protein - tomato (fragment)
C; Species: Lycopersicon esculentum (tomato)
C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text change 09-Sep-1997
C; Accession: S19775
R; Parsons, B.L.
submitted to the EMBL Data Library, May 1991
A; Reference number: S19773
A; Accession: S19775
A; Molecule type: mRNA
A; Residues: 1-11 < PAR>
A;Cross-references: EMBL:X59884; NID:g19323; PID:g19324
                           18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                               0;
             2; Conservative
                                                                   0; Gaps
  Matches
                                 0; Mismatches
                                                    0; Indels
            9 SK 10
Qy
              11
Db
            4 SK 5
```

1 AR 2

Qу

```
A34135
DNA-binding protein p - Crithidia fasciculata mitochondrion (fragment)
C; Species: mitochondrion Crithidia fasciculata
C:Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text_change 07-Dec-1999
C; Accession: A34135
R; Tittawella, I.
FEBS Lett. 260, 57-61, 1990.
A; Title: Kinetoplast DNA-aggregating proteins from the parasitic protozoan
Crithidia fasciculata.
A; Reference number: A34135
A; Accession: A34135
A; Molecule type: protein
A; Residues: 1-11 <TIT>
C; Genetics:
A; Genome: mitochondrion
A; Genetic code: SGC6
C; Keywords: mitochondrion
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                              0;
                               0; Mismatches
                                                    0;
                                                        Indels
                                                                      Gaps
  Matches
            2; Conservative
            2 RK 3
Qy
            8 RK 9
Db
RESULT 23
E57789
gallbladder stone matrix protein, 25K - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text change 23-Feb-1996
C; Accession: E57789
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, February 1996
A; Description: The proteins of gallbladder stones.
A; Reference number: A57789
A; Accession: E57789
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <BIN>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                               0;
                               0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
  Matches
            2; Conservative
            4 TR 5
Qу
              11
            1 TR 2
RESULT 24
I52980
glucocerebrosidase - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text_change 05-Nov-1999
C; Accession: I52980; I65971
```

```
R; Reiner, O.; Wigderson, M.; Horowitz, M.
DNA 7, 107-116, 1988
A; Title: Structural analysis of the human glucocerebrosidase genes.
A; Reference number: I52980; MUID: 88195776; PMID: 3359914
A; Accession: I52980
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A;Cross-references: GB:M18916; NID:g183023; PIDN:AAA35878.1; PID:g183024
A; Accession: I65971
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RE2>
A;Cross-references: GB:M18917; NID:g183025; PIDN:AAA35879.1; PID:g183026
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                               0;
            2; Conservative
                                                    0;
            5 RE 6
Qy
              \perp
Db
            8 RE 9
RESULT 25
I54193
Rhesus blood group CcEe protein - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 06-Sep-1996 #sequence revision 06-Sep-1996 #text change 21-Jul-2000
C; Accession: I54193
R; Cherif-Zahar, B.; Le Van Kim, C.; Rouillac, C.; Raynal, V.; Cartron, J.P.;
Colin, Y.
Genomics 19, 68-74, 1994
A; Title: Organization of the gene (RHCE) encoding the human blood group RhCcEe
antigens and characterization of the promoter region.
A; Reference number: I54193; MUID: 94245182; PMID: 8188244
A; Accession: I54193
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A;Cross-references: GB:S70456; NID:g546795; PIDN:AAD14061.1; PID:g4261761
C; Genetics:
A; Gene: GDB: RHCE
A; Cross-references: GDB:229957; OMIM:111700
A; Map position: 1p36.2-1p34
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                                                               0;
                                                                  0; Gaps
  Matches
             2; Conservative
                               0; Mismatches
                                                    0; Indels
            9 SK 10
Qу
              11
Db
            3 SK 4
```

RESULT 26 S68637

```
acetylcholinesterase (EC 3.1.1.7) P chain - bovine (fragment)
C: Species: Bos primigenius taurus (cattle)
C; Date: 04-Dec-1997 #sequence revision 04-Dec-1997 #text change 30-Jan-1998
C; Accession: S68637
R; Boschetti, N.; Brodbeck, U.
FEBS Lett. 380, 133-136, 1996
A; Title: The membrane anchor of mammalian brain acetylcholinesterase consists of
a single glycosylated protein of 22 kDa.
A; Reference number: S68637; MUID: 96181683; PMID: 8603722
A; Accession: S68637
A; Molecule type: protein
A; Residues: 1-11 <BOS>
A; Experimental source: brain
C; Keywords: carboxylic ester hydrolase; glycoprotein; membrane protein
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
            8 KS 9
Qy
              \perp
            4 KS 5
Db
RESULT 27
S78765
ribosomal protein MRP-S24, mitochondrial - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text change 20-Sep-1999
C; Accession: S78765
R; Graack, H.R.
submitted to the Protein Sequence Database, July 1999
A; Reference number: S78760
A; Accession: S78765
A; Molecule type: protein
A; Residues: 1-11 <GRA>
C; Keywords: mitochondrion
F:1-11/Product: ribosomal protein MRP-S24 (fragment) #status experimental <MAT>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             2; Conservative
                               0; Mismatches
           10 KD 11
Qу
              Ш
            7 KD 8
Db
RESULT 28
S54347
tubulin beta chain - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 27-Oct-1995 #sequence_revision 30-Jan-1998 #text change 07-May-1999
C; Accession: S54347
R; Okazaki, K.; Obata, N.H.; Inoue, S.; Hidaka, H.
Biochem. J. 306, 551-555, 1995
```

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in glial cells.
A; Reference number: $54343; MUID: 95194333; PMID: 7887910
A:Accession: S54347
A; Molecule type: protein
A; Residues: 1-11 <OKA>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
 Matches
             2; Conservative
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                              0;
           10 KD 11
QУ
              Db
            1 KD 2
RESULT 29
A14454
6-phosphofructokinase (EC 2.7.1.11) - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 05-Jun-1987 #sequence revision 05-Jun-1987 #text change 28-Apr-1993
C; Accession: A14454
R; Fordyce, A.M.; Midwinter, G.G.; Moore, C.H.
Biochem. Soc. Trans. 7, 721-723, 1979
A; Title: The N-terminal amino acid sequence of sheep heart phosphofructokinase.
A; Reference number: A14454; MUID: 80004524; PMID: 157899
A; Accession: A14454
A; Molecule type: protein
A; Residues: 1-11 <FOR>
C; Keywords: glycolysis; phosphotransferase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
                                                                              0;
 Matches
            2; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
Qу
            3 KT 4
              \perp
            9 KT 10
Db
RESULT 30
PH1632
Iq H chain V-D-J region (clone B-less 209) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence revision 02-Jun-1994 #text_change 17-Mar-1999
C; Accession: PH1632
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A;Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1632
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
```

A; Title: S100-beta is a target protein of neurocalcin delta, an abundant isoform

```
18.2%; Score 2; DB 2; Length 11;
  Ouerv Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            2; Conservative
                              0; Mismatches
 Matches
            1 AR 2
Qу
              2 AR 3
Db
RESULT 31
PH1600
Iq H chain V-D-J region (wild-type clone 310) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text change 17-Mar-1999
C; Accession: PH1600
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1600
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Ouery Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
            2; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
  Matches
            1 AR 2
Qy
              11
Db
            2 AR 3
RESULT 32
PH1583
Ig H chain V-D-J region (wild-type clone 6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence revision 02-Jun-1994 #text change 17-Mar-1999
C; Accession: PH1583
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1583
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A: Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8e+04;
```

```
2; Conservative 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            1 AR 2
Qу
              | | |
            2 AR 3
RESULT 33
PH1584
Ig H chain V-D-J region (wild-type clone 8) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jun-1994 #sequence_revision 02-Jun-1994 #text change 17-Mar-1999
C; Accession: PH1584
R; Levinson, D.A.; Campos-Torres, J.; Leder, P.
J. Exp. Med. 178, 317-329, 1993
A; Title: Molecular characterization of transgene-induced immunodeficiency in B-
less mice using a novel quantitative limiting dilution polymerase chain reaction
method.
A; Reference number: PH1580; MUID: 93301609; PMID: 8315387
A; Accession: PH1584
A; Molecule type: DNA
A; Residues: 1-11 <LEV>
A; Experimental source: bone marrow pre-B lymphocyte
C; Keywords: immunoglobulin
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                 0;
                                                                              0;
 Matches
            2; Conservative
                               0; Mismatches
                                                       Indels
                                                                  0; Gaps
            1 AR 2
Qу
              1.1
            2 AR 3
Db
RESULT 34
PD0442
NIPSNAP2 protein - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 05-Feb-1999 #sequence_revision 05-Feb-1999 #text_change 05-Feb-1999
C; Accession: PD0442
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Contents: Striatum
A; Accession: PD0442
A; Molecule type: protein
A; Residues: 1-11 <KAW>
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                       Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                0; Mismatches
                                                    0;
  Matches
Qу
            5 RE 6
              \mathbf{I}
            1 RE 2
Db
```

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RESULT 35
PT0214
T-cell receptor beta chain V-J region (4-1-L.6) - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 30-May-1997
C; Accession: PT0214
R; Nakano, N.; Kikutani, H.; Nishimoto, H.; Kishimoto, T.
J. Exp. Med. 173, 1091-1097, 1991
A; Title: T cell receptor V gene usage of islet beta cell-reactive T cells is not
restricted in non-obese diabetic mice.
A; Reference number: PT0209; MUID: 91217621; PMID: 1902501
A; Accession: PT0214
A; Molecule type: mRNA
A; Residues: 1-11 <NAK>
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
                                                                               0;
                                                    0;
            2; Conservative
            1 AR 2
Qy
              11
            3 AR 4
Db
RESULT 36
PD0441
translation elongation factor TU-like protein P43, mitochondrial - mouse
C; Species: Mus musculus (house mouse)
C;Date: 21-Aug-1998 #sequence revision 21-Aug-1998 #text_change 21-Aug-1998
C; Accession: PD0441
R; Kawakami, T.; Uchida, T.; Sakai, T.; Kamo, M.; Morimasa, T.; Tsugita, A.
submitted to JIPID, August 1998
A; Description: Proteome analysis of mouse brain.
A; Reference number: PD0441
A; Accession: PD0441
A; Molecule type: protein
A; Residues: 1-11 <KAW>
A; Experimental source: striatum
C; Keywords: mitochondrion
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                               0;
                                                       Indels
                                                                  0; Gaps
             2;
                Conservative
                                 0; Mismatches
                                                    0;
            3 KT 4
Qy
            6 KT 7
RESULT 37
PH0939
T-cell receptor beta chain V-D-J region (clone 10) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text change 30-May-1997
```

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C: Accession: PH0939
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A; Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0939
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: complete Freund's adjuvant-immunized lymph node
C; Keywords: T-cell receptor
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                               0; Mismatches
                                                                              0;
  Matches
            2; Conservative
                                                   0; Indels
                                                                  0; Gaps
            9 SK 10
Qу
              11
            4 SK 5
Db
RESULT 38
PH0903
T-cell receptor beta chain V-D-J region (hybridoma S1C2A6) - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence revision 09-Oct-1992 #text change 30-May-1997
C; Accession: PH0903
R; Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
J. Exp. Med. 174, 1467-1476, 1991
A:Title: Analysis of T cell receptor beta chains in Lewis rats with experimental
allergic encephalomyelitis: conserved complementarity determining region 3.
A; Reference number: PH0891; MUID: 92078857; PMID: 1836012
A; Accession: PH0903
A; Molecule type: mRNA
A; Residues: 1-11 <GOL>
A; Experimental source: myelin basic protein-immunized T-cell
C; Keywords: T-cell receptor
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
            6 ER 7
Qy
              \perp
            9 ER 10
Db
RESULT 39
T12264
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia caucasia mitochondrion
(fragment)
C; Species: mitochondrion Laudakia caucasia
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12264; T12267; T12270; T12273; T12276; T12279
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
```

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A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A:Accession: T12264
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC1>
A; Cross-references: EMBL: AF028681; NID: q3641460; PIDN: AAC99596.1; PID: q3641463
A; Experimental source: specimen voucher CAS185010; California Academy of
Sciences, San Francisco
A; Accession: T12267
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC2>
A; Cross-references: EMBL: AF028682; NID: g3641464; PIDN: AAC99599.1; PID: g3641467
A; Accession: T12270
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC3>
A; Cross-references: EMBL: AF028683; NID: q3641468; PIDN: AAC99602.1; PID: q3641471
A; Accession: T12273
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC4>
A; Cross-references: EMBL: AF028684; NID: q3641472; PIDN: AAC99605.1; PID: q3641475
A; Accession: T12276
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC5>
A;Cross-references: EMBL:AF028686; NID:q3641480; PIDN:AAC99611.1; PID:q3641483
A; Accession: T12279
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC6>
A;Cross-references: EMBL:AF028687; NID:g3641484; PIDN:AAC99614.1; PID:g3641487
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
 Matches
             2; Conservative
                                 0; Mismatches
                                                                               0;
                                                    0;
                                                       Indels
                                                                   0; Gaps
            4 TR 5
Qy .
              5 TR 6
Db
RESULT 40
T12253
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia erythrogastra mitochondrion
C; Species: mitochondrion Laudakia erythrogastra
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12253; T12257
```

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R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12253
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC1>
A;Cross-references: EMBL:AF028679; NID:g3641452; PIDN:AAC99590.1; PID:g3641455
A; Experimental source: specimen voucher CAS182954; California Academy of
Sciences, San Francisco
A; Accession: T12257
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC2>
A; Cross-references: EMBL: AF028680; NID: g3641456; PIDN: AAC99593.1; PID: g3641459
A; Experimental source: specimen voucher CAS184400; California Academy of
Sciences, San Francisco
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
  Query Match
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2.8e+04;
  Matches
            2; Conservative
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
            4 TR 5
Qу
              II
            5 TR 6
Db
RESULT 41
T12244
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia lehmanni mitochondrion
C; Species: mitochondrion Laudakia lehmanni
C;Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12244
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12244
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC>
A;Cross-references: EMBL:AF028677; NID:g3641444; PID:g3641447; PIDN:AAC99584.1
A; Experimental source: specimen voucher CAS183009; California Academy of
Sciences, San Francisco
C; Genetics:
```

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A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
 Ouery Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                   0; Indels
                                                                              0;
 Matches
                                 0; Mismatches
                                                                  0; Gaps
            2; Conservative
            4 TR 5
Qу
              +1
            5 TR 6
Db
RESULT 42
T12248
cytochrome-c oxidase (EC 1.9.3.1) chain I - Laudakia microlepis mitochondrion
(fragment)
C; Species: mitochondrion Laudakia microlepis
C; Date: 23-Jul-1999 #sequence revision 23-Jul-1999 #text change 03-Aug-2001
C; Accession: T12248
R; Macey, J.R.; Schulte II, J.A.; Ananjeva, N.B.; Larson, A.; Rastegar-Pouyani,
N.; Shammakov, S.M.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 118-131, 1998
A; Title: Phylogenetic relationships among agamid lizards of the Laudakia
caucasia species group: Testing hypotheses of biogeographic fragmentation and an
area cladogram for the Iranian Plateau.
A; Reference number: Z17470; MUID: 98424476; PMID: 9751922
A; Accession: T12248
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 <MAC>
A;Cross-references: EMBL:AF028678; NID:g3641448; PID:g3641451; PIDN:AAC99587.1
A; Experimental source: specimen voucher GNM. RE. ex.-P120; Goteborg Natural
History Museum Reptilia Exotica, Goteborg, Sweden
C; Genetics:
A; Gene: COI
A; Genome: mitochondrion
C; Keywords: mitochondrion; oxidoreductase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
            2; Conservative
                                                  0; Indels
            4 TR 5
Qу
Db
            5 TR 6
RESULT 43
A48973
qlucoamylase A1 (EC 3.2.1.-) - Chalara paradoxa (fragment)
C; Species: Chalara paradoxa
C;Date: 19-Dec-1993 #sequence_revision 25-Apr-1997 #text change 25-Apr-1997
C; Accession: A48973
R; Monma, M.; Kainuma, K.
Carbohydr. Res. 227, 385-388, 1992
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A;Gene: COI

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A:Title: Heterogeneity of the glucoamylase components of the raw-starch-
digesting amylase from Chalara paradoxa.
A; Reference number: A48973; MUID: 92361881; PMID: 1499035
A; Accession: A48973
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <MON>
A; Note: sequence extracted from NCBI backbone (NCBIP:110946)
C; Keywords: glycosidase; hydrolase
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
             2; Conservative
            6 ER 7
Qу
           10 ER 11
RESULT 44
S60294
tubulin 2 beta-3 chain - fruit fly (Drosophila melanogaster) (fragment)
C; Species: Drosophila melanogaster
C;Date: 19-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 21-Jun-2002
C; Accession: S60294
R; Chapel, S.; Sobrier, M.L.; Montpied, P.; Micard, D.; Bruhat, A.; Couderc,
J.L.; Dastugue, B.
Insect Mol. Biol. 2, 39-48, 1993
A; Title: In Drosophila Kc cells 20-OHE induction of the 60C beta-3 tubulin gene
expression is a primary transcriptional event.
A; Reference number: S60292; MUID: 97242543; PMID: 9087542
A; Accession: S60294
A; Molecule type: mRNA
A; Residues: 1-11 < CHA>
A; Cross-references: EMBL:X60393
C; Genetics:
A; Gene: FlyBase: beta-Tub60D
A;Cross-references: FlyBase:FBgn0003888
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                  0; Gaps
                                0; Mismatches 0; Indels
                                                                               0;
  Matches
             2; Conservative
            4 TR 5
Qу
              11
            5 TR 6
Db
RESULT 45
PC2124
aminotransferase chimera DY376 - synthetic (fragment)
C; Species: synthetic
C;Date: 28-May-1999 #sequence_revision 28-May-1999 #text change 28-May-1999
C; Accession: PC2124
R; Miyazawa, K.; Kawaguchi, S.; Okamoto, A.; Kato, R.; Ogawa, T.; Kuramitsu, S.
J. Biochem. 115, 568-577, 1994
```

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A; Title: Construction of aminotransferase chimeras and analysis of their
substrate specificity.
A; Reference number: JX0315; MUID: 94334304; PMID: 8056774
A; Accession: PC2124
A; Molecule type: DNA
A; Residues: 1-11 <MIY>
C; Comment: This is a chimeric enzyme of Escherichia coli aspartate
aminotransferase (EC 2.6.1.1) and aromatic amino acid aminotransferase (EC
2.6.1.57).
C; Comment: The parental enzymes catalyze the reversible amino group transfer
reaction between L-aspartate and L-glutamate, respectively.
C:Genetics:
A; Gene: aspC; tyrB
C; Keywords: aminotransferase
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 2.8e+04;
  Best Local Similarity
                                                                              0;
            2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
            5 RE 6
Qv
              11
            4 RE 5
Db
RESULT 46
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
             1; Conservative
            2 R 2
QУ
            3 R 3
```

```
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C; Date: 13-Jul-1981 #sequence revision 13-Jul-1981 #text change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                   0; Indels
                                                                              0;
            1; Conservative
                              0; Mismatches
                                                                  0; Gaps
            2 R 2
Qу
            6 R 6
Db
RESULT 48
ECLQ2M
tachykinin II - migratory locust
C; Species: Locusta migratoria (migratory locust)
C;Date: 31-Dec-1991 #sequence revision 31-Dec-1991 #text change 08-Dec-1995
C; Accession: S08266
R;Schoofs, L.; Holman, G.M.; Hayes, T.K.; Nachman, R.J.; de Loof, A.
FEBS Lett. 261, 397-401, 1990
A; Title: Locustatachykinin I and II, two novel insect neuropeptides with
homology to peptides of the vertebrate tachykinin family.
A; Reference number: S08265; MUID: 90184489; PMID: 2311766
A:Accession: S08266
A; Molecule type: protein
A; Residues: 1-11 <SCH>
C; Superfamily: tachykinin
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Arg) #status experimental
  Query Match
                           9.1%; Score 1;
                                            DB 1;
                                                   Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
                                                                              0;
  Matches
            1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
Οv
            1 A 1
            1 A 1
Db
RESULT 49
```

SPHO

substance P - horse

```
C: Species: Equus caballus (domestic horse)
C:Date: 23-Oct-1981 #sequence revision 23-Oct-1981 #text change 23-Aug-1996
C; Accession: A01558
R; Studer, R.O.; Trzeciak, A.; Lergier, W.
Helv. Chim. Acta 56, 860-866, 1973
A; Title: Isolierung und Aminosaeuresequenz von Substanz P aus Pferdedarm.
A; Reference number: A01558
A; Accession: A01558
A; Molecule type: protein
A; Residues: 1-11 <STU>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; hormone
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                                              0;
  Matches
            1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
            2 R 2
Qy
              1
Db
            1 R 1
RESULT 50
A60654
substance P - guinea pig
C; Species: Cavia porcellus (guinea pig)
C;Date: 14-May-1993 #sequence revision 27-Jun-1994 #text change 08-Dec-1995
C; Accession: A60654
R; Murphy, R.
Neuropeptides 14, 105-110, 1989
A; Title: Primary amino acid sequence of guinea-pig substance P.
A; Reference number: A60654; MUID: 90044685; PMID: 2478925
A; Accession: A60654
A; Molecule type: protein
A; Residues: 1-11 <MUR>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; neuropeptide; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status experimental
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                  0; Gaps 0;
             1; Conservative
                               0; Mismatches
                                                   0; Indels
            2 R 2
Qу
            1 R 1
RESULT 51
GMROL
leucosulfakinin - Madeira cockroach
N; Alternate names: LSK
C; Species: Leucophaea maderae (Madeira cockroach)
C; Date: 17-Mar-1987 #sequence revision 17-Mar-1987 #text change 13-Sep-1996
C; Accession: A01622
R; Nachman, R.J.; Holman, G.M.; Haddon, W.F.; Ling, N.
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Science 234, 71-73, 1986
A; Title: Leucosulfakinin, a sulfated insect neuropeptide with homology to
gastrin and cholecystokinin.
A; Reference number: A01622; MUID: 86315858; PMID: 3749893
A; Accession: A01622
A; Molecule type: protein
A; Residues: 1-11 <NAC>
C; Superfamily: gastrin
C; Keywords: amidated carboxyl end; hormone; sulfoprotein
F; 6/Binding site: sulfate (Tyr) (covalent) #status experimental
F;11/Modified site: amidated carboxyl end (Phe) #status experimental
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                               0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1; Conservative
            6 E 6
Qу
              1
            1 E 1
Db
RESULT 52
LFTWWE
probable trpEG leader peptide - Thermus aquaticus
C; Species: Thermus aquaticus
C;Date: 30-Jun-1991 #sequence revision 30-Jun-1991 #text change 16-Jul-1999
C; Accession: S03315
R; Sato, S.; Nakada, Y.; Kanaya, S.; Tanaka, T.
Biochim. Biophys. Acta 950, 303-312, 1988
A; Title: Molecular cloning and nucleotide sequence of Thermus thermophilus HB8
trpE and trpG.
A; Reference number: S03315; MUID: 89000781; PMID: 2844259
A; Accession: S03315
A; Molecule type: DNA
A; Residues: 1-11 <SAT>
A; Cross-references: EMBL: X07744; NID: g48261; PIDN: CAA30565.1; PID: g48262
A; Note: the source is designated as Thermus thermophilus HB8
C; Genetics:
A; Gene: trpL
C; Superfamily: probable trpEG leader peptide
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                              0;
  Matches
            1; Conservative
                                                                  0; Gaps
            1 A 1
Qу
            2 A 2
RESULT 53
S66196
alcohol dehydrogenase (EC 1.1.1.1) class III high affinity form - cod (Gadus
sp.) (fragment)
C; Species: Gadus sp. (cod)
C;Date: 14-Feb-1997 #sequence revision 13-Mar-1997 #text change 12-Jun-1998
C; Accession: S66196
```

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R; Hjelmqvist, L.; Hackett, M.; Shafqat, J.; Danielsson, O.; Iida, J.;
Hendrickson, R.C.; Michel, H.; Shabanowitz, J.; Hunt, D.F.; Joernvall, H.
FEBS Lett. 367, 237-240, 1995
A; Title: Multiplicity of N-terminal structures of medium-chain alcohol
dehydrogenases. Mass-spectrometric analysis of plant, lower vertebrate and
higher vertebrate class I, II, and III forms of the enzyme.
A; Reference number: S66191; MUID: 95331382; PMID: 7607314
A; Accession: S66196
A; Molecule type: protein
A; Residues: 1-11 <HJE>
C; Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology
C; Keywords: alcohol metabolism; NAD; oxidoreductase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            1; Conservative
  Matches
            4 T 4
Qу
            1 T 1
Db
RESULT 54
G42762
proteasome endopeptidase complex (EC 3.4.25.1) subunit 13 - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 04-Mar-1993 #sequence revision 18-Nov-1994 #text change 17-Feb-2003
C; Accession: G42762
R; Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A.
Biochemistry 31, 7347-7355, 1992
A; Title: Identification and localization of a cysteinyl residue critical for the
trypsin-like catalytic activity of the proteasome.
A; Reference number: A42762; MUID: 92378961; PMID: 1510924
A; Accession: G42762
A;Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <DIC>
A; Note: sequence extracted from NCBI backbone (NCBIP:112176)
C; Superfamily: multicatalytic endopeptidase complex chain C9
C; Keywords: hydrolase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
  Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
            4 T 4
Qy
            3 T 3
RESULT 55
S68392
H+-transporting two-sector ATPase (EC 3.6.3.14) chain I - Chlamydomonas
reinhardtii chloroplast (fragment)
N; Alternate names: ATP synthase chain I
C; Species: chloroplast Chlamydomonas reinhardtii
C;Date: 04-Dec-1997 #sequence revision 12-Dec-1997 #text change 03-Jun-2002
```

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C; Accession: S68392
R: Fiedler, H.R.; Schmid, R.; Leu, S.; Shavit, N.; Strotmann, H.
FEBS Lett. 377, 163-166, 1995
A; Title: Isolation of CF(0)CF(1) from Chlamydomonas reinhardtii cw15 and the N-
terminal amino acid sequences of the CF(0)CF(1) subunits.
A:Reference number: S68388; MUID:96128220; PMID:8543042
A; Accession: S68392
A; Molecule type: protein
A; Residues: 1-11 <FIE>
A; Experimental source: strain CW15
C; Genetics:
A; Genome: chloroplast
C; Superfamily: H+-transporting ATP synthase protein 6
C; Keywords: ATP biosynthesis; chloroplast; hydrolase; membrane-associated
complex; thylakoid
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            6 E 6
Qу
              1
            1 E 1
Db
RESULT 56
A33917
dihydroorotase (EC 3.5.2.3) - Chinese hamster (fragment)
C; Species: Cricetulus griseus (Chinese hamster)
C;Date: 09-Mar-1990 #sequence revision 09-Mar-1990 #text change 07-Nov-1997
C; Accession: A33917
R; Simmer, J.P.; Kelly, R.E.; Scully, J.L.; Grayson, D.R.; Rinker Jr., A.G.;
Bergh, S.T.; Evans, D.R.
Proc. Natl. Acad. Sci. U.S.A. 86, 4382-4386, 1989
A; Title: Mammalian aspartate transcarbamylase (ATCase): sequence of the ATCase
domain and interdomain linker in the CAD multifunctional polypeptide and
properties of the isolated domain.
A; Reference number: A33917; MUID: 89282776; PMID: 2543974
A; Accession: A33917
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-11 <SIM>
A; Cross-references: GB:M23652
C; Superfamily: rudimentary enzyme; aspartate/ornithine carbamoyltransferase
homology; Bacillus dihydroorotase homology; biotin carboxylase homology;
carbamoyl-phosphate synthase (ammonia) homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) large chain homology; carbamoyl-phosphate synthase
(glutamine-hydrolyzing) small chain homology; trpG homology
C; Keywords: hydrolase
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                               0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
             1; Conservative
  Matches
            6 E 6
Qу
            2 E 2
Db
```

```
RESULT 57
B49164
chromogranin-B - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 31-Oct-1997
C:Accession: B49164
R; Nielsen, E.; Welinder, B.S.; Madsen, O.D.
Endocrinology 129, 3147-3156, 1991
A; Title: Chromogranin-B, a putative precursor of eight novel rat glucagonoma
peptides through processing at mono-, di-, or tribasic residues.
A; Reference number: A49164; MUID: 92063871; PMID: 1954895
A; Accession: B49164
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <NIE>
A; Note: sequence extracted from NCBI backbone (NCBIP: 66370)
C: Superfamily: chromogranin B precursor
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
  Matches
                                0; Mismatches
                                                   0; Indels
                                                                              0;
            1; Conservative
            9 S 9
Qу
            3 S 3
Db
RESULT 58
JN0023
substance P - chicken
C; Species: Gallus gallus (chicken)
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text change 11-Jul-1997
C; Accession: JN0023
R; Conlon, J.M.; Katsoulis, S.; Schmidt, W.E.; Thim, L.
Regul. Pept. 20, 171-180, 1988
A; Title: [Arg3] substance P and neurokinin A from chicken small intestine.
A; Reference number: JN0023; MUID: 88204263; PMID: 2452461
A; Accession: JN0023
A; Molecule type: protein
A; Residues: 1-11 <CON>
C; Superfamily: substance P precursor
C; Keywords: amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2e+05;
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
                                0; Mismatches
  Matches
             1; Conservative
            2 R 2
Qу
Db
            1 R 1
```

RESULT 59 A38841

```
rhodopsin homolog - squid (Watasenia scintillans) (fragment)
N; Alternate names: visual pigment protein
C; Species: Watasenia scintillans (sparkling enope)
C; Date: 17-Jul-1992 #sequence revision 17-Jul-1992 #text change 31-Oct-1997
C; Accession: A38841
R; Seidou, M.; Kubota, I.; Hiraki, K.; Kito, Y.
Biochim. Biophys. Acta 957, 318-321, 1988
A; Title: Amino acid sequence of the retinal binding site of squid visual
pigment.
A; Reference number: PT0063; MUID: 89051045; PMID: 3191148
A; Accession: A38841
A; Molecule type: protein
A; Residues: 1-11 <SEI>
C; Superfamily: vertebrate rhodopsin
C; Keywords: chromoprotein; retinal
F;3/Binding site: retinal (Lys) (covalent) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1; Conservative
            1 A 1
Qу
            2 A 2
Db
RESULT 60
PQ0682
photosystem I 17.5K D2 chain - common tobacco (fragment)
C; Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 17-Mar-1999
C; Accession: PQ0682
R;Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A; Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and
psaL are all present in isoforms in Nicotiana spp.
A; Reference number: PQ0667; MUID: 94105345; PMID: 8278548
A; Accession: PQ0682
A; Molecule type: protein
A; Residues: 1-11 <OBO>
C; Superfamily: photosystem I chain II
C; Keywords: chloroplast; photosynthesis; photosystem I; thylakoid
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                               0; Mismatches
                                                                              0;
                                                                  0; Gaps
             1;
                Conservative
                                                    0; Indels
            1 A 1
Qy
            1 A 1
RESULT 61
S00616
parasporal crystal protein, wax moth-specific - Bacillus thuringiensis (strain
galleriae 11-67) (fragment)
N; Alternate names: delta-endotoxin; parasporal crystal protein positive chain
```

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C;Date: 31-Dec-1988 #sequence revision 31-Dec-1988 #text change 13-Sep-1996
C:Accession: S00616
R; Chestukhina, G.G.; Kostina, L.I.; Zalunin, I.A.; Khodova, O.M.; Stepanov, V.M.
FEBS Lett. 232, 249-251, 1988
A:Title: Bacillus thuringiensis ssp. galleriae simultaneously produces two
delta-endotoxins differing strongly in primary structure and entomocidal
activity.
A; Reference number: S00615
A; Accession: S00616
A; Molecule type: protein
A; Residues: 1-11 <CHE>
C; Comment: This toxin is effective against the larvae of Galleria melonella
(greater wax moth) but not those of Lymantria dispar (gypsy moth).
C; Superfamily: parasporal crystal protein
C; Keywords: delta-endotoxin
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
                                                                              0;
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            1; Conservative
            1 A 1
Qy
            4 A 4
Db
RESULT 62
C53652
rhlR protein - Pseudomonas aeruginosa (fragment)
C; Species: Pseudomonas aeruginosa
C;Date: 21-Jul-1995 #sequence revision 28-Jul-1995 #text change 21-Aug-1998
C; Accession: C53652
R;Ochsner, U.A.; Fiechter, A.; Reiser, J.
J. Biol. Chem. 269, 19787-19795, 1994
A; Title: Isolation, characterization, and expression in Escherichia coli of the
Pseudomonas aeruginosa rhlAB genes encoding a rhamnosyltransferase involved in
rhamnolipid biosurfactant synthesis.
A; Reference number: A53652; MUID: 94327521; PMID: 8051059
A; Accession: C53652
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-11 <OCH>
A; Cross-references: GB:L28170
C; Superfamily: sdiA regulatory protein
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
            1; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
Qу
            2 R 2
            2 R 2
Db
RESULT 63
S09074
cytochrome P450-4b - rat (fragment)
```

C; Species: Bacillus thuringiensis

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N; Alternate names: cytochrome P450K-5
N; Contains: oxidoreductase (EC 1.-.-.)
C: Species: Rattus norvegicus (Norway rat)
C; Date: 23-Apr-1993 #sequence revision 23-Apr-1993 #text change 05-Mar-1999
C; Accession: S09074
R; Imaoka, S.; Terano, Y.; Funae, Y.
Arch. Biochem. Biophys. 278, 168-178, 1990
A; Title: Changes in the amount of cytochrome P450s in rat hepatic microsomes
with starvation.
A; Reference number: S09072; MUID: 90210577; PMID: 2321956
A; Accession: S09074
A; Molecule type: protein
A; Residues: 1-11 <IMA>
C; Superfamily: unassigned cytochrome P450; cytochrome P450 homology
C; Keywords: heme; microsome; monooxygenase; oxidoreductase; transmembrane
protein
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
            1; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            4 T 4
Qy
Db
            5 T 5
RESULT 64
A57458
gene Gax protein - mouse (fragment)
C; Species: Mus sp. (mouse)
C; Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text change 15-Oct-1999
C; Accession: A57458
R; Andres, V.; Fisher, S.; Wearsch, P.; Walsh, K.
Mol. Cell. Biol. 15, 4272-4281, 1995
A; Title: Regulation of Gax homeobox gene transcription by a combination of
positive factors including myocyte-specific enhancer factor 2.
A; Reference number: A57458; MUID: 95349593; PMID: 7623821
A; Accession: A57458
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-11 < RES>
A; Cross-references: GB:S79168; NID:g1050991
C; Genetics:
A; Gene: Gax
C; Superfamily: unassigned homeobox proteins; homeobox homology
C; Keywords: DNA binding; homeobox; nucleus; transcription regulation
  Query Match
                           9.1%; Score 1; DB 2; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
                                                                               0;
             1; Conservative
                                 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
  Matches
            6 E 6
Qу
```

2 E 2

Db

```
D60409
kassinin-like peptide K-III - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: D60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: D60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2e+05;
            1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                      Gaps
                                                                              0;
            6 E 6
Qy
            6 E 6
Db
RESULT 66
F60409
substance P-like peptide II - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 02-Sep-2000
C; Accession: F60409
R;Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: F60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                  0;
                                                                              0;
             1; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                      Gaps
  Matches
            6 E 6
Qу
              -1
            6 E 6
Db
```

Ø

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RESULT 67
E60409
substance P-like peptide I - frog (Pseudophryne guentheri)
C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence_revision 30-Jan-1993 #text_change 02-Sep-2000
C; Accession: E60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: E60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;11/Modified site: amidated carboxyl end (Met) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                               0; Mismatches
                                                                              0;
            1; Conservative
                                                   0; Indels
                                                                  0; Gaps
  Matches
           11 D 11
Qу
            5 D 5
Db
RESULT 68
A61365
phyllokinin - Rohde's leaf frog
N; Alternate names: bradykinyl-isoleucyl-tyrosine O-sulfate
C; Species: Phyllomedusa rohdei (Rohde's leaf frog)
C;Date: 09-Sep-1994 #sequence revision 09-Sep-1994 #text change 18-Aug-2000
C; Accession: A61365
R; Anastasi, A.; Bertaccini, G.; Erspamer, V.
Br. J. Pharmacol. 27, 479-485, 1966
A; Title: Pharmacological data on phyllokinin (bradykinyl-isoleucyl-tyrosine O-
sulphate) and bradykinyl-isoleucyl-tyrosine.
A; Reference number: A61365; MUID: 67179312; PMID: 5970899
A; Accession: A61365
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <ANA>
C; Superfamily: unassigned animal peptides
C; Keywords: sulfoprotein
F;11/Binding site: sulfate (Tyr) (covalent) #status experimental
                           9.1%; Score 1; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 2e+05;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                 0; Indels
                                                                  0; Gaps
            1; Conservative
            2 R 2
Qy
            1 R 1
Db
```

```
RESULT 69
S23308
substance P - rainbow trout
C; Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23308
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: S23186; MUID: 92298992; PMID: 1376687
A: Accession: S23308
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
C; Superfamily: unassigned animal peptides
C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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RESULT 70
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substance P - Atlantic cod
C; Species: Gadus morhua (Atlantic cod)
C;Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 18-Aug-2000
C; Accession: S23306
R; Jensen, J.; Conlon, J.M.
Eur. J. Biochem. 206, 659-664, 1992
A; Title: Substance-P-related and neurokinin-A-related peptides from the brain of
the cod and trout.
A; Reference number: $23186; MUID: 92298992; PMID: 1376687
A; Accession: S23306
A; Molecule type: protein
A; Residues: 1-11 <JEN>
A; Experimental source: brain
C; Function:
A; Description: may play a physiological role in the regulation of cardiovascular
and gastrointestinal functions
A; Note: substance P is derived by post-translational processing of
preprotachykinin A
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C; Keywords: neuropeptide; amidated carboxyl end; tachykinin
F;11/Modified site: amidated carboxyl end (Met) #status predicted
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C; Species: Pseudophryne guentheri
C;Date: 30-Jan-1993 #sequence revision 30-Jan-1993 #text change 18-Aug-2000
C; Accession: B60409
R; Simmaco, M.; Severini, C.; De Biase, D.; Barra, D.; Bossa, F.; Roberts, J.D.;
Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
the Australian frog Pseudophryne guentheri.
A; Reference number: A60409; MUID: 90287814; PMID: 2356157
A; Accession: B60409
A; Molecule type: protein
A; Residues: 1-11 <SIM>
A; Note: this peptide was also found in a deamidated form
C; Superfamily: unassigned animal peptides
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Melchiorri, P.; Erspamer, V.
Peptides 11, 299-304, 1990
A; Title: Six novel tachykinin- and bombesin-related peptides from the skin of
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uperolein - frog (Uperoleia marmorata)
C; Species: Uperoleia marmorata
C;Date: 12-Feb-1993 #sequence revision 12-Mar-1993 #text change 18-Aug-2000
C; Accession: S07203
R; Anastasi, A.; Erspamer, V.; Endean, R.
Experientia 31, 394-395, 1975
A; Title: Structure of uperolein, a physalaemin-like endecapeptide occurring in
the skin of Uperoleia rugosa and Uperoleia marmorata.
A; Reference number: S07203; MUID: 75131227; PMID: 1120493
A; Accession: S07203
A; Molecule type: protein
A; Residues: 1-11 < ANA>
C; Superfamily: unassigned animal peptides
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C; Species: Crinia georgiana
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text change 18-Aug-2000
C: Accession: S07207
R; Erspamer, V.; Melchiorri, P.; Nakajima, T.; Yasuhara, T.; Endean, R.
Experientia 35, 1132-1133, 1979
A; Title: Amino acid composition and sequence of crinia-angiotensin, an
angiotensin II-like endecapeptide from the skin of the Australian frog Crinia
georgiana.
A; Reference number: S07207; MUID: 80024575; PMID: 488254
A; Accession: S07207
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A; Residues: 1-11 <ERS>
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C; Keywords: amidated carboxyl end; pyroglutamic acid

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C; Species: Physalaemus fuscomaculatus
C;Date: 12-Feb-1993 #sequence revision 12-Mar-1993 #text_change 18-Aug-2000
C; Accession: S07201
R; Erspamer, V.; Anastasi, A.; Bertaccini, G.; Cei, J.M.
Experientia 20, 489-490, 1964
A; Title: Structure and pharmacological actions of physalaemin, the main active
polypeptide of the skin of Physalaemus fuscumaculatus.
A; Reference number: S07201; MUID: 66076612; PMID: 5857249
A; Accession: S07201
A; Molecule type: protein
A; Residues: 1-11 <ERS>
C; Superfamily: unassigned animal peptides
C; Keywords: amidated carboxyl end; pyroglutamic acid; skin; tachykinin
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Db
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Job time : 8.61538 secs

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OM protein - protein search, using sw model

Run on: April 8, 2004, 15:47:33; Search time 30.3077 Seconds

(without alignments)

95.432 Million cell updates/sec

Title: US-09-787-443A-14

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Gapop 60.0 , Gapext 60.0

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result Query

No. Score Match Length DB ID

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2	4	36.4	11	10	US-09-876-904A-239	Sequence 239, App
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4	4	36.4		12	US-09-727-739B-18	Sequence 18, Appl
5	4	36.4		13	US-10-039-645-3	Sequence 3, Appli
6	4	36.4		14	US-10-139-084-3	Sequence 3, Appli
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34	3	27.3	11	12	US-10-462-452-372	Sequence 372, App
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ALIGNMENTS

RESULT 1 US-09-966-871-3

- ; Sequence 3, Application US/09966871
- ; Patent No. US20020127539A1
- ; GENERAL INFORMATION:
- ; APPLICANT: Kopin, Alan S.
- ; TITLE OF INVENTION: Assays for Identifying Receptors Having
- ; TITLE OF INVENTION: Alterations in Signaling

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  CURRENT APPLICATION NUMBER: US/09/966,871
  CURRENT FILING DATE: 2001-09-28
  PRIOR APPLICATION NUMBER: US 60/236,302
  PRIOR FILING DATE: 2000-09-28
  PRIOR APPLICATION NUMBER: US 60/288,644
  PRIOR FILING DATE: 2001-05-03
; NUMBER OF SEQ ID NOS: 87
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    ORGANISM: Homo sapiens
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; Sequence 239, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
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; Publication No. US20040049800A1
; GENERAL INFORMATION:
  APPLICANT: Kopin, Alan S.
  APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Rapid Methods For Assessing Therapeutic
  TITLE OF INVENTION: Activity Using Animals Expressing Constitutively Active
  TITLE OF INVENTION: Protein-Coupled Receptors
  FILE REFERENCE: 00398/517002
  CURRENT APPLICATION NUMBER: US/10/458,860
  CURRENT FILING DATE: 2003-06-11
  PRIOR APPLICATION NUMBER: US 60/388,450
  PRIOR FILING DATE: 2002-06-13
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; Publication No. US20010025097A1
; GENERAL INFORMATION:
; APPLICANT: Sheridan, Mark
; APPLICANT: Kittilson, Jeffrey
; APPLICANT: Moore, Craig
  TITLE OF INVENTION: Somatostatins and Methods
; FILE REFERENCE: 255.00040101
  CURRENT APPLICATION NUMBER: US/09/727,739B
  CURRENT FILING DATE: 2000-12-01
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; Sequence 3, Application US/10039645
; Publication No. US20020147170A1
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; APPLICANT: Kopin, Alan S.
 APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Constitutively Active, Hypersensitive,
  TITLE OF INVENTION: and No. US20020147170Alfunctional Receptors as No.
US20020147170Alel Therapeutic Agents
; FILE REFERENCE: 00398/510002
  CURRENT APPLICATION NUMBER: US/10/039,645
  CURRENT FILING DATE: 2001-10-25
; PRIOR APPLICATION NUMBER: US 60/243,550
; PRIOR FILING DATE: 2000-10-26
; NUMBER OF SEQ ID NOS: 87
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-039-645-3
  Query Match
                         36.4%; Score 4; DB 13; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+02;
           4; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
           5 RERK 8
Qу
             1111
Db
           1 RERK 4
RESULT 6
US-10-139-084-3
; Sequence 3, Application US/10139084
; Publication No. US20030087313A1
; GENERAL INFORMATION:
  APPLICANT: Kopin, Alan S.
  APPLICANT: Beinborn, Martin
  TITLE OF INVENTION: Dose Response-Based Methods For
  TITLE OF INVENTION: Identifying Receptors Having Alterations in Signaling
  FILE REFERENCE: 00398/515002
 CURRENT APPLICATION NUMBER: US/10/139,084
 CURRENT FILING DATE: 2002-12-23
  PRIOR APPLICATION NUMBER: US 60/288,647
; PRIOR FILING DATE: 2001-05-03
```

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NUMBER OF SEQ ID NOS: 74
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Homo sapiens
US-10-139-084-3
  Query Match
                          36.4%; Score 4; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+02;
  Matches
           4; Conservative 0; Mismatches
                                                0; Indels
                                                                     Gaps
                                                                             0;
            5 RERK 8
Qу
              1 RERK 4
Db
RESULT 7
US-09-839-666-12
; Sequence 12, Application US/09839666
; Patent No. US20020025513A1
; GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
        NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/839,666
              FILING DATE: 19-Apr-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/737,085
              FILING DATE: <Unknown>
         ATTORNEY/AGENT INFORMATION:
              NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
              TELEFAX: 212-753-6237
              TELEX: 236687
    INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
```

```
STRANDEDNESS: single
;
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-839-666-12
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                              0; Mismatches 0;
  Matches
             3; Conservative
                                                      Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 RKT 4
Qу
              IIII
            2 RKT 4
Db
RESULT 8
US-09-941-611-3
; Sequence 3, Application US/09941611
; Patent No. US20020106640A1
    GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
                    POLLET, DIRK
                    MAERTENS, GEERT
;
                    VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                             ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: NIXON & VANDERHYE P.C.
              STREET: 1100 NORTH GLEBE ROAD
              CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/941,611
              FILING DATE: 30-Aug-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/391,671
              FILING DATE: 1995-02-21
              APPLICATION NUMBER: WO PCT/EP91/02409
              FILING DATE: 13-DEC-1991
              APPLICATION NUMBER: EP 90124241.2
              FILING DATE: 14-DEC-1990
         ATTORNEY/AGENT INFORMATION:
              NAME: SADOFF, B.J.
              REGISTRATION NUMBER: 36,663
              REFERENCE/DOCKET NUMBER: 1487-5
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 7038164000
              TELEFAX: 7038164100
```

```
SEOUENCE CHARACTERISTICS:
;
             LENGTH: 11 amino acids
             TYPE: amino acid
             STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-941-611-3
                         27.3%; Score 3; DB 9; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                                                                            0;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
           2 RKT 4
Qу
             | | |
           2 RKT 4
Db
RESULT 9
US-09-949-196-16
; Sequence 16, Application US/09949196
; Patent No. US20020147145A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
  TITLE OF INVENTION: MATERIALS AND METHODS RELATING TO THE DEGRADATION OF
Cdc25A IN RESPONSE
  TITLE OF INVENTION: TO DNA DAMAGE
  FILE REFERENCE: 55888 (45487)
; CURRENT APPLICATION NUMBER: US/09/949,196
  CURRENT FILING DATE: 2001-07-09
  NUMBER OF SEQ ID NOS: 45
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-949-196-16
                         27.3%; Score 3; DB 9; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                            0;
                                                                0; Gaps
           1 ARK 3
Qу
              111
           2 ARK 4
Db
RESULT 10
US-09-071-838-212
; Sequence 212, Application US/09071838
; Patent No. US20020152501A1
; GENERAL INFORMATION:
     APPLICANT: Fischer, Robert L.
```

INFORMATION FOR SEQ ID NO: 3:

;

```
APPLICANT: Ohad, Nir
                Kiyosue, Tomohiro
     APPLICANT:
     APPLICANT:
                Yadegari, Ramin
     APPLICANT: Margossian, Linda
     APPLICANT:
                 Harada, John
     APPLICANT:
                 Goldberg, Robert B.
     TITLE OF INVENTION: Nucleic Acids That Control Seed and TITLE OF INVENTION: Fruit Development in Plants
     NUMBER OF SEQUENCES: 324
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Townsend and Townsend and Crew LLP
       STREET: Two Embarcadero Center, Eighth Floor
       CITY: San Francisco
       STATE: California
       COUNTRY: USA
       ZIP: 94111-3834
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/071,838
       FILING DATE: 01-MAY-1998
       CLASSIFICATION: 800
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
       REGISTRATION NUMBER: 34,774
       REFERENCE/DOCKET NUMBER: 023070-086100US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 576-0200
       TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 212:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-09-071-838-212
                          27.3%; Score 3; DB 9; Length 11;
  Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                    0; Indels
  Matches
                                                                  0; Gaps
                                                                              0;
            7 RKS 9
Qу
              \perp
            2 RKS 4
Db
RESULT 11
US-09-071-838-253
; Sequence 253, Application US/09071838
; Patent No. US20020152501A1
  GENERAL INFORMATION:
     APPLICANT: Fischer, Robert L.
     APPLICANT: Ohad, Nir
     APPLICANT: Kiyosue, Tomohiro
```

```
APPLICANT: Yadegari, Ramin
;
    APPLICANT: Margossian, Linda
    APPLICANT: Harada, John
    APPLICANT: Goldberg, Robert B.
    TITLE OF INVENTION: Nucleic Acids That Control Seed and
    TITLE OF INVENTION: Fruit Development in Plants
    NUMBER OF SEQUENCES: 324
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, Eighth Floor
      CITY: San Francisco
      STATE: California
      COUNTRY: USA
      ZIP: 94111-3834
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/071,838
      FILING DATE: 01-MAY-1998
      CLASSIFICATION: 800
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Bastian, Kevin L.
      REGISTRATION NUMBER: 34,774
      REFERENCE/DOCKET NUMBER: 023070-086100US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 576-0200
      TELEFAX: (415) 576-0300
   INFORMATION FOR SEQ ID NO: 253:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-09-071-838-253
 Query Match
                         27.3%; Score 3; DB 9; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
          3; Conservative 0; Mismatches 0; Indels
 Matches
                                                                0; Gaps
                                                                            0;
           6 ERK 8
Qу
             111
Db
           5 ERK 7
RESULT 12
US-09-882-291-44
; Sequence 44, Application US/09882291
; Publication No. US20030040472A1
; GENERAL INFORMATION:
; APPLICANT: Zealand Pharmaceuticals A/S
; TITLE OF INVENTION: No. US20030040472A1el Peptide Conjugates
; FILE REFERENCE: 007-2001
; CURRENT APPLICATION NUMBER: US/09/882,291
; CURRENT FILING DATE: 2001-06-15
```

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NUMBER OF SEQ ID NOS: 77
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 44
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic peptide
sequence
US-09-882-291-44
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                               0; Mismatches
                                                                0; Gaps
                                                                            0;
           3; Conservative
                                                0; Indels
 Matches
           1 ARK 3
Qу
             111
           2 ARK 4
Db
RESULT 13
US-09-775-052-3
; Sequence 3, Application US/09775052
; Publication No. US20030054000A1
; GENERAL INFORMATION:
; APPLICANT: Dowdy, Steven F.
  TITLE OF INVENTION: ANTI-PATHOGEN SYSTEM AND METHODS OF USE THEREOF
  FILE REFERENCE: 48881/1742
  CURRENT APPLICATION NUMBER: US/09/775,052
  CURRENT FILING DATE: 2001-02-01
  PRIOR APPLICATION NUMBER: 09/208,966
  PRIOR FILING DATE: 1998-12-10
  PRIOR APPLICATION NUMBER: 60/082,402
  PRIOR FILING DATE: 1998-04-20
  PRIOR APPLICATION NUMBER: 60/069,012
  PRIOR FILING DATE: 1997-12-10
  NUMBER OF SEQ ID NOS: 57
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
   LENGTH: 11
    TYPE: PRT
    ORGANISM: human
US-09-775-052-3
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
  Matches
Qу
            1 ARK 3
             111
Db
           2 ARK 4
RESULT 14
US-09-847-946A-126
; Sequence 126, Application US/09847946A
; Publication No. US20030054999A1
```

```
; GENERAL INFORMATION:
  APPLICANT: May, Michael J
  APPLICANT: Ghosh, Sankar
  APPLICANT: Findeis, Mark A
  APPLICANT: Phillips, Kathryn
  APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
  FILE REFERENCE: PPI-119
  CURRENT APPLICATION NUMBER: US/09/847,946A
  CURRENT FILING DATE: 2001-05-02
  PRIOR APPLICATION NUMBER: 60/201,261
  PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
  NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 126
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: membrane
   OTHER INFORMATION: translocation domain
US-09-847-946A-126
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
           3; Conservative 0; Mismatches 0;
                                                      Indels
                                                                     Gaps
                                                                             0;
           1 ARK 3
Qу
              \perp \perp \perp
Db
            2 ARK 4
RESULT 15
US-09-847-946A-127
; Sequence 127, Application US/09847946A
; Publication No. US20030054999A1
; GENERAL INFORMATION:
  APPLICANT: May, Michael J
  APPLICANT: Ghosh, Sankar
  APPLICANT: Findeis, Mark A
  APPLICANT: Phillips, Kathryn
  APPLICANT: Hannig, Gerhard
  TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF
  FILE REFERENCE: PPI-119
  CURRENT APPLICATION NUMBER: US/09/847,946A
  CURRENT FILING DATE: 2001-05-02
  PRIOR APPLICATION NUMBER: 60/201,261
  PRIOR FILING DATE: 2000-05-02
  PRIOR APPLICATION NUMBER: 09/643,260
  PRIOR FILING DATE: 2000-08-22
  NUMBER OF SEQ ID NOS: 160
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 127
   LENGTH: 11
   TYPE: PRT
```

```
FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence:membrane
   OTHER INFORMATION: translocation domain
US-09-847-946A-127
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
                         100.0%; Pred. No. 8.9e+03;
 Best Local Similarity
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           1 ARK 3
Qу
             \perp
           2 ARK 4
RESULT 16
US-09-876-904A-33
; Sequence 33, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
  APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 33
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic Polyma
   OTHER INFORMATION: major capsid protein VP1
US-09-876-904A-33
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
           3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           7 RKS 9
Qу
              4 RKS 6
RESULT 17
US-09-876-904A-202
; Sequence 202, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
```

ORGANISM: Artificial Sequence

```
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 202
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Schizosaccharomyces pombe
   OTHER INFORMATION: Karyophilic peptide
US-09-876-904A-202
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                           0;
                                                               0; Gaps
           8 KSK 10
Qу
             Db
           4 KSK 6
RESULT 18
US-09-876-904A-236
; Sequence 236, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
; TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
; PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
 SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 236
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
    OTHER INFORMATION: Description of Unknown Organism: Hydrophilic protein
US-09-876-904A-236
  Query Match
                        27.3%; Score 3; DB 10; Length 11;
```

```
3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                          0;
           1 ARK 3
Qy
             111
           7 ARK 9
Db
RESULT 19
US-09-876-904A-237
; Sequence 237, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
  TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
; PRIOR APPLICATION NUMBER: US 60/210,925
 PRIOR FILING DATE: 2000-06-09
; NUMBER OF SEQ ID NOS: 629
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 237
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   OTHER INFORMATION: Description of Unknown Organism: Hydrophilic protein
US-09-876-904A-237
 Query Match
                         27.3%; Score 3; DB 10; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches
          3; Conservative 0; Mismatches
                                               0; Indels
                                                               0; Gaps
                                                                           0;
           6 ERK 8
Qу
             111
           1 ERK 3
Db
RESULT 20
US-09-876-904A-509
; Sequence 509, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
 APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
; TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
; FILE REFERENCE: TB-2002.00
; CURRENT APPLICATION NUMBER: US/09/876,904A
; CURRENT FILING DATE: 2001-06-08
```

Best Local Similarity 100.0%; Pred. No. 8.9e+03;

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PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 509
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Unknown Organism
   FEATURE:
   OTHER INFORMATION: Description of Unknown Organism: Ig/EBP-1 (immunoglobulin
    OTHER INFORMATION: gene enhancer-binding protein).
US-09-876-904A-509
                         27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative
                               0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
           8 KSK 10
Qу
             -111
Db
           7 KSK 9
RESULT 21
US-09-876-904A-555
; Sequence 555, Application US/09876904A
; Publication No. US20030072794A1
; GENERAL INFORMATION:
; APPLICANT: BOULIKAS, TENI
  TITLE OF INVENTION: ENCAPSULATION OF PLASMID DNA (LIPOGENES TM) AND
THERAPEUTIC
; TITLE OF INVENTION: AGENTS WITH NUCLEAR LOCALIZATION SIGNAL/FUSOGENIC
PEPTIDE
  TITLE OF INVENTION: CONJUGATES INTO TARGETED LIPOSOME COMPLEXES
  FILE REFERENCE: TB-2002.00
  CURRENT APPLICATION NUMBER: US/09/876,904A
  CURRENT FILING DATE: 2001-06-08
  PRIOR APPLICATION NUMBER: US 60/210,925
  PRIOR FILING DATE: 2000-06-09
  NUMBER OF SEQ ID NOS: 629
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 555
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
    OTHER INFORMATION: Human UsnRNP-associated 70 k protein (437 aas)
   OTHER INFORMATION: that is phosphorylated at Arg/Ser-rich domains.
US-09-876-904A-555
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches 3; Conservative
                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           6 ERK 8
             \perp
Db
            5 ERK 7
```

```
US-09-992-665-55
; Sequence 55, Application US/09992665
; Publication No. US20030092009A1
; GENERAL INFORMATION:
  APPLICANT: Kaia Palm
  TITLE OF INVENTION: PROFILING TUMOR SPECIFIC MARKERS FOR THE
  TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF NEOPLASTIC DISEASE
  FILE REFERENCE: CEMINES.002A
  CURRENT APPLICATION NUMBER: US/09/992,665
  CURRENT FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 60/249,508
  PRIOR FILING DATE: 2000-11-16
  NUMBER OF SEQ ID NOS: 380
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 55
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Probe
US-09-992-665-55
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
 Matches
           9 SKD 11
QУ
             -111
Db
           2 SKD 4
RESULT 23
US-09-972-656-6
; Sequence 6, Application US/09972656
; Publication No. US20030099647A1
; GENERAL INFORMATION:
 APPLICANT: Deshpande, Rajendra
 APPLICANT: Tsai, Mei-Mei
  TITLE OF INVENTION: Fully Human Antibody Fab Fragments with Human Interferon-
Gamma
  TITLE OF INVENTION: Neutralizing Activity
  FILE REFERENCE: A-799
; CURRENT APPLICATION NUMBER: US/09/972,656
; CURRENT FILING DATE: 2001-10-05
; NUMBER OF SEQ ID NOS: 135
 SOFTWARE: PatentIn version 3.0
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-972-656-6
                         27.3%; Score 3; DB 10; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
```

RESULT 22

```
1 ARK 3
Qу
              \parallel \parallel \parallel
            6 ARK 8
Db
RESULT 24
US-09-829-922-4
; Sequence 4, Application US/09829922
; Publication No. US20030171537A1
; GENERAL INFORMATION:
   APPLICANT: Halazonetis, Thanos
  APPLICANT: Hartwig, Wolfgang
   TITLE OF INVENTION: Peptides and peptidomimetics with
   TITLE OF INVENTION: structural similarity to human p53 that activate p53
   TITLE OF INVENTION:
                        function
   FILE REFERENCE: 2973.19998
   CURRENT APPLICATION NUMBER: US/09/829,922
   CURRENT FILING DATE: 2001-04-11
   PRIOR APPLICATION NUMBER: 08/894,327
   PRIOR FILING DATE: 1997-12-04
   PRIOR APPLICATION NUMBER: pctus96/01535
   PRIOR FILING DATE: 1996-02-16
   PRIOR APPLICATION NUMBER: 08/392,542
   PRIOR FILING DATE: 1995-02-16
; NUMBER OF SEQ ID NOS: 35
   SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-829-922-4
  Query Match
                          27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 8.9e+03;
  Matches
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             3; Conservative
Qу
            8 KSK 10
              III
Db
            8 KSK 10
RESULT 25
US-09-829-922-13
; Sequence 13, Application US/09829922
; Publication No. US20030171537A1
; GENERAL INFORMATION:
  APPLICANT: Halazonetis, Thanos
   APPLICANT: Hartwig, Wolfgang
   TITLE OF INVENTION: Peptides and peptidomimetics with
   TITLE OF INVENTION: structural similarity to human p53 that activate p53
   TITLE OF INVENTION: function
   FILE REFERENCE: 2973.19998
   CURRENT APPLICATION NUMBER: US/09/829,922
; CURRENT FILING DATE: 2001-04-11
   PRIOR APPLICATION NUMBER: 08/894,327
```

PRIOR FILING DATE: 1997-12-04

```
PRIOR APPLICATION NUMBER: pctus96/01535
  PRIOR FILING DATE: 1996-02-16
; PRIOR APPLICATION NUMBER: 08/392,542
; PRIOR FILING DATE: 1995-02-16
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
    OTHER INFORMATION: Synthetic, modified from Homo sapiens p53
US-09-829-922-13
  Query Match
                         27.3%; Score 3; DB 10; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
          8 KSK 10
Qу
            111
           2 KSK 4
Db
RESULT 26
US-09-940-316B-57
; Sequence 57, Application US/09940316B
; Publication No. US20030175901A1
; GENERAL INFORMATION:
; APPLICANT: KOSAN BIOSCIENCES, Inc.
; APPLICANT: REEVES, CHRISTOPHER
; APPLICANT: CHU, DANIEL
; APPLICANT: KHOSLA, CHAITAN
; APPLICANT: SANTI, DANIEL
; APPLICANT: WU, KAI
; TITLE OF INVENTION: POLYKETIDES ENCODING THE fkbA GENE OF THE FK-520
POLYKETIDE SYNTHASE
; TITLE OF INVENTION: GENE CLUSTER
  FILE REFERENCE: 30062-20026.11
  CURRENT APPLICATION NUMBER: US/09/940,316B
  CURRENT FILING DATE: 2001-08-27
 PRIOR APPLICATION NUMBER: 09/410,551
  PRIOR FILING DATE: 1999-10-01
  PRIOR APPLICATION NUMBER: US 60/139,650
; PRIOR FILING DATE: 1999-06-17
; PRIOR APPLICATION NUMBER: US 60/123,810
  PRIOR FILING DATE: 1999-03-11
; PRIOR APPLICATION NUMBER: US 60/102,748
 PRIOR FILING DATE: 1998-10-02
  NUMBER OF SEQ ID NOS: 72
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 57
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic PKS
   OTHER INFORMATION: synthase fragment
```

```
27.3%; Score 3; DB 10; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                                                                0; Gaps
                             0; Mismatches
                                                                            0;
           3; Conservative
                                               0; Indels
           5 RER 7
Qу
             \mathbf{I}
           5 RER 7
Db
RESULT 27
US-10-430-685-39
; Sequence 39, Application US/10430685
; Publication No. US20040039543A1
; GENERAL INFORMATION:
  APPLICANT: KECK, Peter
 TITLE OF INVENTION: COMPUTER METHOD AND APPARATUS FOR CLASSIFYING OBJECTS
  FILE REFERENCE: 63040-010210
  CURRENT APPLICATION NUMBER: US/10/430,685
  CURRENT FILING DATE: 2003-05-06
 PRIOR APPLICATION NUMBER: PCT/US01/44000
  PRIOR FILING DATE: 2001-11-06
  PRIOR APPLICATION NUMBER: 60/246,196
  PRIOR FILING DATE: 2000-11-06
; NUMBER OF SEQ ID NOS: 240
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 39
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Homo sapiens
US-10-430-685-39
  Query Match
                         27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qу
           7 RKS 9
             \perp
Db
           3 RKS 5
RESULT 28
US-10-462-452-276
; Sequence 276, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
 APPLICANT: Quay, Steven
  APPLICANT:
             El Shafy, Mohammed Abd
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
 CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
; PRIOR APPLICATION NUMBER: 60/393,066
```

```
NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 276
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-462-452-276
                          27.3%; Score 3; DB 12; Length 11;
 Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                                                                             0;
                                0; Mismatches
                                                   0;
                                                      Indels
                                                                 0; Gaps
            3; Conservative
            4 TRE 6
Qγ
              111
            1 TRE 3
Db
RESULT 29
US-10-462-452-292
; Sequence 292, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
  APPLICANT: Quay, Steven
             El Shafy, Mohammed Abd
  APPLICANT:
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 292
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-462-452-292
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches 0; Indels
                                                                             0;
                                                                 0; Gaps
  Matches
            4 TRE 6
Qy
              111
            1 TRE 3
Db
RESULT 30
US-10-462-452-308
; Sequence 308, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven
```

PRIOR FILING DATE: 2002-06-28

```
APPLICANT:
              El Shafy, Mohammed Abd
              Gupta, Malini
  APPLICANT:
  APPLICANT:
              de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 308
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-462-452-308
                         27.3%; Score 3; DB 12; Length 11;
 Query Match
 Best Local Similarity
                        100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
 Matches
           4 TRE 6
Qy
              +11
           1 TRE 3
Db
RESULT 31
US-10-462-452-324
; Sequence 324, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
  APPLICANT: Quay, Steven
  APPLICANT: El Shafy, Mohammed Abd
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 324
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-462-452-324
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 8.9e+03;
  Matches
            3; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
Qy
            4 TRE 6
```

4 TRE 6

```
RESULT 32
US-10-462-452-340
; Sequence 340, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven
  APPLICANT: El Shafy, Mohammed Abd
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEO ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 340
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-462-452-340
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.9e+03;
            3; Conservative
 Matches
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            4 TRE 6
Qу
              Db
            1 TRE 3
RESULT 33
US-10-462-452-356
; Sequence 356, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
  APPLICANT: Quay, Steven
  APPLICANT: El Shafy, Mohammed Abd
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 356
   LENGTH: 11
   TYPE: PRT
```

```
; ORGANISM: Homo sapiens
US-10-462-452-356
                         27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches
           3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                            0;
            4 TRE 6
Qу
             Db
            1 TRE 3
RESULT 34
US-10-462-452-372
; Sequence 372, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven
  APPLICANT: El Shafy, Mohammed Abd
  APPLICANT: Gupta, Malini
  APPLICANT: de Meireles, Jorge
  TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
  FILE REFERENCE: 02-02US
  CURRENT APPLICATION NUMBER: US/10/462,452
  CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
; PRIOR FILING DATE: 2002-06-28
 NUMBER OF SEQ ID NOS: 790
 SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 372
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Homo sapiens
US-10-462-452-372
  Query Match
                         27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
            4 TRE 6
Qу
              \mathbf{H}\mathbf{H}
Db
           1 TRE 3
RESULT 35
US-10-462-452-388
; Sequence 388, Application US/10462452
; Publication No. US20040037809A1
; GENERAL INFORMATION:
; APPLICANT: Quay, Steven
 APPLICANT: El Shafy, Mohammed Abd
; APPLICANT: Gupta, Malini
 APPLICANT: de Meireles, Jorge
 TITLE OF INVENTION: Compositions and Methods for Enhanced
  TITLE OF INVENTION: Mucosal-Delivery of Interferon Beta
```

; FILE REFERENCE: 02-02US

```
CURRENT APPLICATION NUMBER: US/10/462,452
   CURRENT FILING DATE: 2003-06-16
  PRIOR APPLICATION NUMBER: 60/393,066
  PRIOR FILING DATE: 2002-06-28
  NUMBER OF SEQ ID NOS: 790
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 388
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-462-452-388
  Query Match
                         27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
            4 TRE 6
Qу
              \pm 1.1
           1 TRE 3
Db
RESULT 36
US-10-398-104-203
; Sequence 203, Application US/10398104
; Publication No. US20040047880A1
; GENERAL INFORMATION:
  APPLICANT: De Bolle, Xavier Thomas
  APPLICANT: Letesson, Jean-Jacques
  APPLICANT:
              Lobet, Yves
              Mertens, Pascal Yvon
  APPLICANT:
              Poolman, Jan
  APPLICANT:
              Voet, Pierre
  APPLICANT:
  TITLE OF INVENTION: COMPONENT FOR VACCINE
  FILE REFERENCE: B45242
  CURRENT APPLICATION NUMBER: US/10/398,104
  CURRENT FILING DATE: 2003-01-04
  PRIOR APPLICATION NUMBER: PCT/EP01/11409
  PRIOR FILING DATE: 2001-10-03
  PRIOR APPLICATION NUMBER: GB 0024200.8
  PRIOR FILING DATE: 2000-10-03
  NUMBER OF SEQ ID NOS: 352
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 203
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: LOS peptide mimotope sequence
US-10-398-104-203
                         27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
Qу
            2 RKT 4
              111
Db
            7 RKT 9
```

```
RESULT 37
US-10-344-878-5
; Sequence 5, Application US/10344878
; Publication No. US20040053848A1
; GENERAL INFORMATION:
  APPLICANT: The University of Virginia Patent Foundation
  APPLICANT: Allis, C. David
  APPLICANT: Strahl, Brian D
  TITLE OF INVENTION: Antibodies Specific for Methylated Lysines in Histones
   FILE REFERENCE: 00601-02
  CURRENT APPLICATION NUMBER: US/10/344,878
  CURRENT FILING DATE: 2003-08-14
   PRIOR APPLICATION NUMBER: US 60/227,767
   PRIOR FILING DATE: 2000-08-25
   PRIOR APPLICATION NUMBER: US 60/302,747
   PRIOR FILING DATE: 2001-07-03
; NUMBER OF SEQ ID NOS: 18
   SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial
    FEATURE:
    OTHER INFORMATION: synthetic peptide used to raise antibodies against the H3
    OTHER INFORMATION: erminus having MeLys at the fifth amino acid position.
    FEATURE:
    NAME/KEY: MOD RES
    LOCATION: (5)..(5)
    OTHER INFORMATION: METHYLATION
    FEATURE:
    NAME/KEY: VARIANT
    LOCATION: (10)..(11)
    OTHER INFORMATION: artificial amino acids added to the natural histone
    OTHER INFORMATION: id in the production of the antibody
US-10-344-878-5
                          27.3%; Score 3; DB 12; Length 11;
  Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                                                                             0;
             3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
  Matches
Qу
            1 ARK 3
              +11
            3 ARK 5
Db
RESULT 38
US-10-344-878-6
; Sequence 6, Application US/10344878
; Publication No. US20040053848A1
; GENERAL INFORMATION:
; APPLICANT: The University of Virginia Patent Foundation
; APPLICANT: Allis, C. David
; APPLICANT: Strahl, Brian D
```

```
TITLE OF INVENTION: Antibodies Specific for Methylated Lysines in Histones
; FILE REFERENCE: 00601-02
; CURRENT APPLICATION NUMBER: US/10/344,878
  CURRENT FILING DATE: 2003-08-14
  PRIOR APPLICATION NUMBER: US 60/227,767
  PRIOR FILING DATE: 2000-08-25
  PRIOR APPLICATION NUMBER: US 60/302,747
  PRIOR FILING DATE: 2001-07-03
; NUMBER OF SEQ ID NOS: 18
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial
   FEATURE:
   OTHER INFORMATION: synthetic peptide used to raise antibodies against the H3
;
amino t
   OTHER INFORMATION: erminus having MeLys at the fifth amino acid position.
   FEATURE:
   NAME/KEY: MOD RES
;
   LOCATION: (5)..(5)
   OTHER INFORMATION: METHYLATION
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: (10)..(11)
   OTHER INFORMATION: artificial amino acids added to the natural histone
   OTHER INFORMATION: id in the production of the antibody
US-10-344-878-6
                         27.3%; Score 3; DB 12; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           1 ARK 3
Qу
             111
Db
           3 ARK 5
RESULT 39
US-09-822-965-16
; Sequence 16, Application US/09822965
; Publication No. US20010029027A1
; GENERAL INFORMATION:
; APPLICANT: Innerarity, Thomas
 APPLICANT: Boren, Jan
  TITLE OF INVENTION: METHODS AND TOOLS FOR IDENTIFYING
  TITLE OF INVENTION: COMPOUNDS WHICH MODULATE ATHEROSCLEROSIS BY IMPACTING
  TITLE OF INVENTION: LDL-PROTEOGLYCAN BINDING
  FILE REFERENCE: 220002059710
  CURRENT APPLICATION NUMBER: US/09/822,965
  CURRENT FILING DATE: 2001-03-29
  PRIOR APPLICATION NUMBER: US 09/265,222
  PRIOR FILING DATE: 1999-03-05
 PRIOR APPLICATION NUMBER: US 60/077,618
  PRIOR FILING DATE: 1998-03-10
; NUMBER OF SEQ ID NOS: 25
```

```
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 16
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   NAME/KEY: MUTAGEN
   LOCATION: 6
   OTHER INFORMATION: Insertion of a single amino acid
US-09-822-965-16
  Query Match
                         27.3%; Score 3; DB 12; Length 11;
                         100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                               0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           3; Conservative
 Matches
           4 TRE 6
Qу
             4 TRE 6
Db
RESULT 40
US-09-823-418-16
; Sequence 16, Application US/09823418
; Publication No. US20010024797A1
; GENERAL INFORMATION:
; APPLICANT: Innerarity, Thomas
; APPLICANT: Boren, Jan
  TITLE OF INVENTION: METHODS AND TOOLS FOR IDENTIFYING COMPOUNDS
  TITLE OF INVENTION: WHICH MODULATE ATHEROSCLEROSIS BY IMPACTING
  TITLE OF INVENTION: LDL-PROTEOGLYCAN BINDING
  FILE REFERENCE: 220002059711
  CURRENT APPLICATION NUMBER: US/09/823,418
  CURRENT FILING DATE: 2001-03-29
  PRIOR APPLICATION NUMBER: US 09/265,222
  PRIOR FILING DATE: 1999-03-05
  PRIOR APPLICATION NUMBER: US 60/077,618
  PRIOR FILING DATE: 1998-03-10
  NUMBER OF SEQ ID NOS: 25
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 16
   LENGTH: 11
    TYPE: PRT
   ORGANISM: Homo sapiens
    FEATURE:
    NAME/KEY: MUTAGEN
    OTHER INFORMATION: Insertion of a single amino acid
US-09-823-418-16
  Query Match
                         27.3%; Score 3; DB 12; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                              0; Mismatches
                                                0; Indels 0; Gaps
                                                                            0;
          3; Conservative
  Matches
Qу
            4 TRE 6
              111
Db
            4 TRE 6
```

```
RESULT 41
US-10-044-034-14
; Sequence 14, Application US/10044034
; Publication No. US20020169264A1
; GENERAL INFORMATION:
  APPLICANT: JACKSON, DAVID C.
  APPLICANT: O'BRIEN-SIMPSON, NEIL M.
  APPLICANT: BROWN, LORENA E.
  APPLICANT: EDE, NICHOLAS J.
  APPLICANT: BRANDT, EVELYN R.
  APPLICANT: GOOD, MICHAEL F.
  TITLE OF INVENTION: POLYMERS INCORPORTING PEPTIDES
  FILE REFERENCE: FBRC:006
  CURRENT APPLICATION NUMBER: US/10/044,034
  CURRENT FILING DATE: 2002-01-11
  PRIOR APPLICATION NUMBER: P05071
  PRIOR FILING DATE: 1997-02-11
  NUMBER OF SEQ ID NOS: 28
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
   OTHER INFORMATION: Peptides
US-10-044-034-14
                         27.3%; Score 3; DB 13; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                              0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
           3; Conservative
            6 ERK 8
Qу
             Db
           7 ERK 9
RESULT 42
US-10-124-880-30
; Sequence 30, Application US/10124880
; Publication No. US20030026810A1
; GENERAL INFORMATION:
  APPLICANT: Jorgensen, Per Lina
  APPLICANT: Schnorr, Kirk
  APPLICANT: Andersen, Lene No. US20030026810Alboe
  APPLICANT: Schulein, Martin
  APPLICANT: Outtrup, Helle
  TITLE OF INVENTION: No. US20030026810Alel Rhamnogalacturonan Hydrolases
  FILE REFERENCE: 5572.204-US
  CURRENT APPLICATION NUMBER: US/10/124,880
  CURRENT FILING DATE: 2002-04-19
  PRIOR APPLICATION NUMBER: US/09/311,626B
  PRIOR FILING DATE: 1999-05-13
  PRIOR APPLICATION NUMBER: 0608/98
  PRIOR FILING DATE: 1998-05-01
  PRIOR APPLICATION NUMBER: 60/084,358
```

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PRIOR FILING DATE: 1998-05-05
; NUMBER OF SEQ ID NOS: 61
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 30
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Microbial
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: 6
   OTHER INFORMATION: Xaa= Ser or Thr
US-10-124-880-30
                         27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
           3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           9 SKD 11
QУ
             111
Db
           8 SKD 10
RESULT 43
US-10-062-710-165
; Sequence 165, Application US/10062710
; Publication No. US20030049253A1
; GENERAL INFORMATION:
; APPLICANT: Li, Frank Q.
; APPLICANT: Chu, Yong-Liang
 APPLICANT: Qiu, Jian-Tai
  TITLE OF INVENTION: Polymeric Conjugates for Delivery of
  TITLE OF INVENTION: MHC-Recognized Epitopes
  TITLE OF INVENTION: Via Peptide Vaccines
  FILE REFERENCE: 3781-001-27
  CURRENT APPLICATION NUMBER: US/10/062,710
  CURRENT FILING DATE: 2002-02-05
  PRIOR APPLICATION NUMBER: US 60/310,498
  PRIOR FILING DATE: 2001-08-08
; NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 165
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: HIV B Cell Epitopes
US-10-062-710-165
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches
          3; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qу
           5 RER 7
             -111
Db
          8 RER 10
```

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RESULT 44
US-10-062-710-166
; Sequence 166, Application US/10062710
: Publication No. US20030049253A1
: GENERAL INFORMATION:
  APPLICANT: Li, Frank Q.
  APPLICANT: Chu, Yong-Liang
  APPLICANT: Qiu, Jian-Tai
  TITLE OF INVENTION: Polymeric Conjugates for Delivery of
  TITLE OF INVENTION: MHC-Recognized Epitopes
  TITLE OF INVENTION: Via Peptide Vaccines
  FILE REFERENCE: 3781-001-27
  CURRENT APPLICATION NUMBER: US/10/062,710
  CURRENT FILING DATE: 2002-02-05
  PRIOR APPLICATION NUMBER: US 60/310,498
  PRIOR FILING DATE: 2001-08-08
  NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEO ID NO 166
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: HIV B Cell Epitopes
US-10-062-710-166
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
           3; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RER 7
Qу
              111
Db
            4 RER 6
RESULT 45
US-10-044-995-3
; Sequence 3, Application US/10044995
; Publication No. US20030049685A1
    GENERAL INFORMATION:
         APPLICANT: DELEYS, ROBERT J
                    POLLET, DIRK
                    MAERTENS, GEERT
                    VAN HEUVERSWUN, HUGO
         TITLE OF INVENTION: SYNTHETIC ANTIGENS FOR THE DETECTION OF
                             ANTIBODIES TO HEPATITIS C VIRUS
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: NIXON & VANDERHYE P.C.
              STREET: 1100 NORTH GLEBE ROAD
              CITY: ARLINGTON
              STATE: VA
              COUNTRY: USA
              ZIP: 22201
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
```

```
OPERATING SYSTEM: PC-DOS/MS-DOS
;
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/044,995
              FILING DATE: 15-Jan-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/391,671
              FILING DATE: <Unknown>
              APPLICATION NUMBER: US 07/920,286
              FILING DATE: 14-OCT-1992
              APPLICATION NUMBER: WO PCT/EP91/02409
              FILING DATE: 13-DEC-1991
              APPLICATION NUMBER: EP 90124241.2
              FILING DATE: 14-DEC-1990
        ATTORNEY/AGENT INFORMATION:
              NAME: SADOFF, B.J.
              REGISTRATION NUMBER: 36,663
              REFERENCE/DOCKET NUMBER: 1487-5
        TELECOMMUNICATION INFORMATION:
              TELEPHONE: 7038164000
              TELEFAX: 7038164100
    INFORMATION FOR SEQ ID NO: 3:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
              STRANDEDNESS: single
              TOPOLOGY: linear
         MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-044-995-3
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches 3; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            2 RKT 4
              \mathbf{I} \mathbf{I} \mathbf{I}
Db
            2 RKT 4
RESULT 46
US-10-229-915-21
; Sequence 21, Application US/10229915
; Publication No. US20030083262A1
; GENERAL INFORMATION:
; APPLICANT: Lazarus, Douglas
   APPLICANT: Hannig, Gerhard
   TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING INFLAMMATORY
   TITLE OF INVENTION: DISORDERS
  FILE REFERENCE: PPI-127
  CURRENT APPLICATION NUMBER: US/10/229,915
  CURRENT FILING DATE: 2002-08-27
; PRIOR APPLICATION NUMBER: US 60/316,328
; PRIOR FILING DATE: 2001-08-30
; NUMBER OF SEQ ID NOS: 39
  SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 21
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: anti-inflammatory compound
US-10-229-915-21
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
                         100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
             3; Conservative 0; Mismatches
                                                  0;
                                                     Indels
                                                                            0;
                                                                 0; Gaps
  Matches
            1 ARK 3
Qу
              2 ARK 4
Db
RESULT 47
US-10-211-088-202
; Sequence 202, Application US/10211088
; Publication No. US20030104479A1
; GENERAL INFORMATION:
 APPLICANT: Bright, Gary R.
  APPLICANT: Premkumar, D. David
  APPLICANT: Chen, Yih-Tai
  TITLE OF INVENTION: No. US20030104479Alel Fusion Proteins And Assays For
Molecular Binding
  FILE REFERENCE: 01-1022-US
   CURRENT APPLICATION NUMBER: US/10/211,088
   CURRENT FILING DATE: 2002-10-15
   PRIOR APPLICATION NUMBER: 60/309,395
   PRIOR FILING DATE: 2001-08-01
   PRIOR APPLICATION NUMBER: 60/341,589
  PRIOR FILING DATE: 2001-12-13
  NUMBER OF SEQ ID NOS: 366
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 202
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial sequence
    FEATURE:
    OTHER INFORMATION: Nuclear localization signal
US-10-211-088-202
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            7 RKS 9
Qy
              IIII
Db
            4 RKS 6
RESULT 48
US-10-136-738-2
; Sequence 2, Application US/10136738
; Publication No. US20030108886A1
```

```
; GENERAL INFORMATION:
  APPLICANT: Finn, John
  APPLICANT: MacLachlan, Ian
  APPLICANT: Protiva Biotherapeutics Inc.
  TITLE OF INVENTION: Autogene Nucleic Acids Encoding a
  TITLE OF INVENTION: Secretable RNA Polymerase
  FILE REFERENCE: 020801-000310US
  CURRENT APPLICATION NUMBER: US/10/136,738
  CURRENT FILING DATE: 2002-04-30
  PRIOR APPLICATION NUMBER: US 60/287,974
  PRIOR FILING DATE: 2001-04-30
  NUMBER OF SEQ ID NOS: 47
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: HIV-Tat variant secretion domain
US-10-136-738-2
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                                                                 0; Gaps
           3; Conservative 0; Mismatches
 Matches
                                                   0; Indels
                                                                             0;
            1 ARK 3
Qу
             | \cdot |
            2 ARK 4
Db
RESULT 49
US-10-213-512-212
; Sequence 212, Application US/10213512
; Publication No. US20030110536A1
; GENERAL INFORMATION:
; APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
  APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Combinations of Nucleic Acids That Control Seed and
  TITLE OF INVENTION: Fruit Development in Plants
  FILE REFERENCE: 023070-086110US
  CURRENT APPLICATION NUMBER: US/10/213,512
                         2002-08-06
  CURRENT FILING DATE:
  PRIOR APPLICATION NUMBER: US/09/177,206
   PRIOR FILING DATE: 1998-10-22
  PRIOR APPLICATION NUMBER: US 09/071,838
  PRIOR FILING DATE: 1998-05-01
  NUMBER OF SEQ ID NOS: 324
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 212
   LENGTH: 11
   TYPE: PRT
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; ORGANISM: Arabidopsis sp.
US-10-213-512-212
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.9e+03;
  Matches
            3; Conservative
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
            7 RKS 9
Qу
              \Pi
            2 RKS 4
Db
RESULT 50
US-10-213-512-253
; Sequence 253, Application US/10213512
; Publication No. US20030110536A1
; GENERAL INFORMATION:
  APPLICANT: Fischer, Robert L.
  APPLICANT: Ohad, Nir
  APPLICANT: Kiyosue, Tomohiro
  APPLICANT: Yadegari, Ramin
  APPLICANT: Margossian, Linda
  APPLICANT: Harada, John
  APPLICANT: Goldberg, Robert B.
  APPLICANT: The Regents of the University of California
  TITLE OF INVENTION: Combinations of Nucleic Acids That Control Seed and
  TITLE OF INVENTION: Fruit Development in Plants
   FILE REFERENCE: 023070-086110US
   CURRENT APPLICATION NUMBER: US/10/213,512
  CURRENT FILING DATE: 2002-08-06
  PRIOR APPLICATION NUMBER: US/09/177,206
   PRIOR FILING DATE: 1998-10-22
   PRIOR APPLICATION NUMBER: US 09/071,838
  PRIOR FILING DATE: 1998-05-01
  NUMBER OF SEQ ID NOS: 324
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 253
   LENGTH: 11
    TYPE: PRT
    ORGANISM: Arabidopsis sp.
US-10-213-512-253
  Query Match
                          27.3%; Score 3; DB 14; Length 11;
                          100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
  Matches
           3; Conservative 0; Mismatches
                                                   0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
            6 ERK 8
Qу
              \parallel \parallel \parallel
            5 ERK 7
Db
RESULT 51
US-10-197-954-48
; Sequence 48, Application US/10197954
; Publication No. US20030119021A1
; GENERAL INFORMATION:
; APPLICANT: K"ster, Hubert
```

```
; APPLICANT: Siddiqi, Suhaib
; APPLICANT: Little, Daniel
  TITLE OF INVENTION: Capture Compounds, Collections Thereof
  TITLE OF INVENTION: And Methods For Analyzing The Proteome And Complex
  TITLE OF INVENTION: Compositions
  FILE REFERENCE: 24743-2305
  CURRENT APPLICATION NUMBER: US/10/197,954
  CURRENT FILING DATE: 2002-07-16
  PRIOR APPLICATION NUMBER: 60/306,019
  PRIOR FILING DATE: 2001-07-16
  PRIOR APPLICATION NUMBER: 60/314,123
  PRIOR FILING DATE: 2001-08-21
  PRIOR APPLICATION NUMBER: 60/363,433
  PRIOR FILING DATE: 2002-03-11
  NUMBER OF SEQ ID NOS: 149
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 48
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo Sapien
   FEATURE:
   NAME/KEY: AMIDATION
   LOCATION: 11
   FEATURE:
   NAME/KEY: MOD RES
   LOCATION: 1
   OTHER INFORMATION: Xaa is pyroglutamic acid
US-10-197-954-48
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
Qу
           9 SKD 11
            Db
           3 SKD 5
RESULT 52
US-10-160-290-4
; Sequence 4, Application US/10160290
; Publication No. US20030124557A1
   GENERAL INFORMATION:
        APPLICANT: Halazonetis, Thanos
                   Hartwig, Wolfgang
        TITLE OF INVENTION: Peptides nad Peptidomimetics with
                             Structural Similarity to Human p53 That Activate
                             p53
                             Function
        NUMBER OF SEQUENCES: 35
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Banner, Birch, McKie & Beckett
             STREET: 1001 G Street, N.W.
             CITY: Washington, D.C.
             STATE: District of Columbia
             COUNTRY: U.S.
             ZIP: 20001
```

```
COMPUTER READABLE FORM:
               MEDIUM TYPE: Floppy disk
               COMPUTER: IBM PC compatible
               OPERATING SYSTEM: PC-DOS/MS-DOS
               SOFTWARE: PatentIn Release #1.0, Version #1.25
          CURRENT APPLICATION DATA:
               APPLICATION NUMBER: US/10/160,290
               FILING DATE: 04-Jun-2002
               CLASSIFICATION: <Unknown>
          PRIOR APPLICATION DATA:
               APPLICATION NUMBER: US/09/685,027
               FILING DATE: 10-Oct-2000
               APPLICATION NUMBER: 08/392,542
               FILING DATE: <Unknown>
          ATTORNEY/AGENT INFORMATION:
               NAME: Posorske, Laurence H.
               REGISTRATION NUMBER: 34,698
               REFERENCE/DOCKET NUMBER: 0486.48439
          TELECOMMUNICATION INFORMATION:
               TELEPHONE: 202 508-9100
               TELEFAX: 202 508-9299
     INFORMATION FOR SEQ ID NO: 4:
          SEQUENCE CHARACTERISTICS:
               LENGTH: 11 amino acids
 ;
               TYPE: amino acid
               TOPOLOGY: linear
          MOLECULE TYPE: peptide
          SEQUENCE DESCRIPTION: SEQ ID NO: 4:
 US-10-160-290-4
                           27.3%; Score 3; DB 14; Length 11;
   Query Match
   Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches
            3; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
 Qу
            8 KSK 10
              · Db
             8 KSK 10
 RESULT 53
US-10-160-290-13
 ; Sequence 13, Application US/10160290
 ; Publication No. US20030124557A1
     GENERAL INFORMATION:
          APPLICANT: Halazonetis, Thanos
                     Hartwig, Wolfgang
          TITLE OF INVENTION: Peptides nad Peptidomimetics with
                              Structural Similarity to Human p53 That Activate
                              p53
                              Function
          NUMBER OF SEQUENCES: 35
          CORRESPONDENCE ADDRESS:
               ADDRESSEE: Banner, Birch, McKie & Beckett
               STREET: 1001 G Street, N.W.
               CITY: Washington, D.C.
               STATE: District of Columbia
               COUNTRY: U.S.
```

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ZIP: 20001
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.25
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/160,290
              FILING DATE: 04-Jun-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/09/685,027
             FILING DATE: 10-Oct-2000
             APPLICATION NUMBER: 08/392,542
              FILING DATE: <Unknown>
        ATTORNEY/AGENT INFORMATION:
             NAME: Posorske, Laurence H.
              REGISTRATION NUMBER: 34,698
              REFERENCE/DOCKET NUMBER: 0486.48439
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 202 508-9100
             TELEFAX: 202 508-9299
   INFORMATION FOR SEQ ID NO: 13:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 11 amino acids
              TYPE: amino acid
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 13:
US-10-160-290-13
 Query Match
                          27.3%; Score 3; DB 14; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
Qу
           8 KSK 10
            111
           2 KSK 4
Db
RESULT 54
US-10-234-579-12
; Sequence 12, Application US/10234579
; Publication No. US20030129587A1
   GENERAL INFORMATION:
         APPLICANT: SALLBERG, MATTI
         TITLE OF INVENTION: ANTIGEN/ANTIBODY SPECIFICITY
                             EXCHANGER
         NUMBER OF SEQUENCES: 23
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: DARBY & DARBY PC
              STREET: 805 Third Avenue
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10022
         COMPUTER READABLE FORM:
```

```
MEDIUM TYPE: Diskette
             COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/234,579
              FILING DATE: 30-Aug-2002
             CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/737,085
              FILING DATE: 27-DEC-1996
         ATTORNEY/AGENT INFORMATION:
             NAME: Green, Reza
              REGISTRATION NUMBER: 38,475
              REFERENCE/DOCKET NUMBER: 3846/0C569
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 212-527-7659
             TELEFAX: 212-753-6237
             TELEX: 236687
   INFORMATION FOR SEQ ID NO: 12:
         SEQUENCE CHARACTERISTICS:
             LENGTH: 11 amino acids
             TYPE: amino acid
              STRANDEDNESS: single
             TOPOLOGY: linear
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-10-234-579-12
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
 Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           2 RKT 4
Qу
             111
Db
           2 RKT 4
RESULT 55
US-10-195-730-318
; Sequence 318, Application US/10195730
; Publication No. US20030144492A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et. al
; TITLE OF INVENTION: 101 Human Secreted Proteins
; FILE REFERENCE: PZ017P1
; CURRENT APPLICATION NUMBER: US/10/195,730
; CURRENT FILING DATE: 2002-07-16
 PRIOR APPLICATION NUMBER: US/09/281,976
; PRIOR FILING DATE: 1999-03-31
; PRIOR APPLICATION NUMBER: 60/060,837
; PRIOR FILING DATE: 1997-10-02
; PRIOR APPLICATION NUMBER: 60/060,862
; PRIOR FILING DATE: 1997-10-02
; NUMBER OF SEQ ID NOS: 390
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 318
```

```
TYPE: PRT
   ORGANISM: Homo sapiens
US-10-195-730-318
 Query Match
                         27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 8.9e+03;
 Best Local Similarity
                               0; Mismatches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
            3; Conservative
           6 ERK 8
Qу
             -111
           8 ERK 10
RESULT 56
US-10-032-201B-310
; Sequence 310, Application US/10032201B
; Publication No. US20030167524A1
; GENERAL INFORMATION:
 APPLICANT: Van Rooijen, Gijs
  APPLICANT: Deckers, Harm
  APPLICANT: Heifetz, Peter Bernard
  APPLICANT: Briggs, Steven
              Dalmia, Bipin Kumar
  APPLICANT:
:
  APPLICANT: Del Val, Greg
; APPLICANT: Zaplachinski, Steve
; APPLICANT: Moloney, Maurice
  TITLE OF INVENTION: METHODS FOR THE PRODUCTION OF MULTIMERIC PROTEINS, AND
RELATED
  TITLE OF INVENTION: COMPOSITIONS
  FILE REFERENCE: 38814 351B
  CURRENT APPLICATION NUMBER: US/10/032,201B
  CURRENT FILING DATE: 2001-12-19
  NUMBER OF SEQ ID NOS: 313
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 310
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rattus norvegicus
US-10-032-201B-310
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
                         100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                             0; Mismatches
                                                                0; Gaps
                                                                            0;
  Matches
          3; Conservative
                                               0; Indels
Qу
           9 SKD 11
             \mathbf{H}
Db
           4 SKD 6
RESULT 57
US-10-224-999A-2198
; Sequence 2198, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
; APPLICANT: Myriad Genetics, Inc.
; APPLICANT: Morham, Scott
```

LENGTH: 11

```
APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2198
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Rubella virus
US-10-224-999A-2198
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
          3; Conservative 0; Mismatches
                                               0; Indels
                                                                0; Gaps
                                                                           0;
  Matches
           5 RER 7
Qy
             -111
Db
           5 RER 7
RESULT 58
US-10-224-999A-2199
; Sequence 2199, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
; APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT:
              Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2199
   LENGTH: 11
   TYPE: PRT
    ORGANISM: Rubella virus
US-10-224-999A-2199
  Query Match
                         27.3%; Score 3; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                          0;
           5 RER 7
Qу
             -111
Db
           4 RER 6
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RESULT 59
US-10-224-999A-2200
; Sequence 2200, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
 APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 3484
 SOFTWARE: PatentIn version 3.1
; SEO ID NO 2200
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Rubella virus
US-10-224-999A-2200
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
  Matches 3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            5 RER 7
Qy
              \mathbf{I} \mathbf{I} \mathbf{I}
            3 RER 5
Db
RESULT 60
US-10-224-999A-2201
; Sequence 2201, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
; APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton
  APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
   CURRENT APPLICATION NUMBER: US/10/224,999A
   CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
   NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2201
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Rubella virus
US-10-224-999A-2201
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
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3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
           5 RER 7
Qу
             111
Db
           2 RER 4
RESULT 61
US-10-224-999A-2202
; Sequence 2202, Application US/10224999A
; Publication No. US20030171318A1
; GENERAL INFORMATION:
  APPLICANT: Myriad Genetics, Inc.
  APPLICANT: Morham, Scott
  APPLICANT: Zavitz, Kenton APPLICANT: Hobden, Adrian
  TITLE OF INVENTION: Composition and Method for Treating Viral Infection
  FILE REFERENCE: 5004.01
  CURRENT APPLICATION NUMBER: US/10/224,999A
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: US 60/313,695
  PRIOR FILING DATE: 2001-08-20
 NUMBER OF SEQ ID NOS: 3484
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2202
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Rubella virus
US-10-224-999A-2202
                         27.3%; Score 3; DB 14; Length 11;
  Query Match
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0:
            5 RER 7
Qу
              \perp
            1 RER 3
RESULT 62
US-10-168-445-83
; Sequence 83, Application US/10168445
; Publication No. US20030177518A1
; GENERAL INFORMATION:
  APPLICANT: Osbourn, Anne E
  APPLICANT: Haralampidis, Kosmas
  APPLICANT: Bryan, Gregory T
  TITLE OF INVENTION: Plant Gene
  FILE REFERENCE: 0380-P02892US0
  CURRENT APPLICATION NUMBER: US/10/168,445
;
   CURRENT FILING DATE: 2002-10-30
   PRIOR APPLICATION NUMBER: PCT/GB00/04908
   PRIOR FILING DATE: 2000-12-20
  PRIOR APPLICATION NUMBER: GB 9930394.3
   PRIOR FILING DATE: 1999-12-22
   PRIOR APPLICATION NUMBER: GB 0020217.6
; PRIOR FILING DATE: 2000-08-16
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NUMBER OF SEQ ID NOS: 219
  SOFTWARE: PatentIn version 3.0
 SEO ID NO 83
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Avena strigosa
US-10-168-445-83
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
           3; Conservative 0; Mismatches 0;
                                                     Indels
                                                                0; Gaps
           7 RKS 9
Qy
             111
           7 RKS 9
Db
RESULT 63
US-10-105-232-108
; Sequence 108, Application US/10105232
; Publication No. US20030180328A1
; GENERAL INFORMATION:
  APPLICANT: BOGOCH, SAMUEL
; APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES IN RAPID REPLICATION OF GLIOMA CELLS
  TITLE OF INVENTION: AND IN INFLUENZA EPIDEMICS
   FILE REFERENCE: 09425-46904
   CURRENT APPLICATION NUMBER: US/10/105,232
   CURRENT FILING DATE: 2002-03-26
   PRIOR APPLICATION NUMBER: 60/303,396
   PRIOR FILING DATE: 2001-07-09
  PRIOR APPLICATION NUMBER: 60/278,761
  PRIOR FILING DATE: 2001-03-27
   PRIOR APPLICATION NUMBER: 09/146,755
  PRIOR FILING DATE: 1998-09-04
  PRIOR APPLICATION NUMBER: 09/817,144
  PRIOR FILING DATE: 2001-03-27
  PRIOR APPLICATION NUMBER: 08/198,139
   PRIOR FILING DATE: 1994-02-17
   NUMBER OF SEQ ID NOS: 535
   SOFTWARE: PatentIn 2.1
; SEQ ID NO 108
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Influenza B virus
US-10-105-232-108
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                                                                            0;
                              0; Mismatches 0; Indels 0; Gaps
  Matches 3; Conservative
           8 KSK 10
Qу
              \pm 1.1
            9 KSK 11
Db
```

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US-10-161-791-283
; Sequence 283, Application US/10161791
 Publication No. US20030186863A1
   GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/10/161,791
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US/08/602,999
       FILING DATE: 16-FEB-1996
     ATTORNEY/AGENT INFORMATION:
       NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-10-161-791-283
                          27.3%; Score 3; DB 14; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                              0; Mismatches 0;
                                                                0; Gaps
                                                     Indels
          3; Conservative
  Matches
            3 KTR 5
Qу
              111
Db
            9 KTR 11
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RESULT 65
US-10-405-339-13
; Sequence 13, Application US/10405339
; Publication No. US20030190364A1
; GENERAL INFORMATION:
 APPLICANT: Panitch, Alyssa
  APPLICANT: Seal, Brandon
  TITLE OF INVENTION: Biological Affinity Based Delivery Systems
  FILE REFERENCE: 9138-0079US
  CURRENT APPLICATION NUMBER: US/10/405,339
  CURRENT FILING DATE: 2003-04-01
  PRIOR APPLICATION NUMBER: US 60/369,568
  PRIOR FILING DATE: 2002-04-01
  NUMBER OF SEQ ID NOS: 60
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial sequence
    FEATURE:
    OTHER INFORMATION: Synthetic peptide
US-10-405-339-13
                          27.3%; Score 3; DB 14; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                              0; Mismatches 0; Indels
                                                                 0; Gaps
            3; Conservative
 Matches
            1 ARK 3
Qу
              111
            2 ARK 4
Db
RESULT 66
US-10-189-437-95
; Sequence 95, Application US/10189437
; Publication No. US20030194414A1
; GENERAL INFORMATION:
  APPLICANT: BOGOCH, SAMUEL
  APPLICANT: BOGOCH, ELENORE S.
  TITLE OF INVENTION: REPLIKIN PEPTIDES AND ANTIBODIES THEREFORE
  FILE REFERENCE: 09425/46905
  CURRENT APPLICATION NUMBER: US/10/189,437
  CURRENT FILING DATE: 2002-07-08
  PRIOR APPLICATION NUMBER: 10/105,232
  PRIOR FILING DATE: 2002-03-26
   PRIOR APPLICATION NUMBER: 09/984,057
   PRIOR FILING DATE: 2001-10-26
   PRIOR APPLICATION NUMBER: 60/303,396
   PRIOR FILING DATE: 2001-07-09
   PRIOR APPLICATION NUMBER: 60/278,761
   PRIOR FILING DATE: 2001-03-27
  NUMBER OF SEQ ID NOS: 729
   SOFTWARE: PatentIn 2.1
; SEQ ID NO 95
    LENGTH: 11
    TYPE: PRT
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ORGANISM: Influenza B virus
US-10-189-437-95
                         27.3%; Score 3; DB 14; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
                                                                            0;
                                                     Indels
                                                                0; Gaps
                               0; Mismatches
                                                0;
           3; Conservative
  Matches
           8 KSK 10
Qу
             9 KSK 11
RESULT 67
US-10-411-869A-30
; Sequence 30, Application US/10411869A
; Publication No. US20030228605A1
; GENERAL INFORMATION:
  APPLICANT: Slootstra, Jelle Wouter
  APPLICANT: Puijk, Wouter Cornelis
  APPLICANT: Meloen, Robert Hans
  APPLICANT: van Dijk, Evert
  APPLICANT: van Dijken, Pieter
  TITLE OF INVENTION: IDENTIFICATION OF PROTEIN BINDING SITES
  FILE REFERENCE: 2183-5921US (SVD/P54407US00)
  CURRENT APPLICATION NUMBER: US/10/411,869A
  CURRENT FILING DATE: 2003-04-10
  PRIOR APPLICATION NUMBER: PCT/NL01/00744
  PRIOR FILING DATE: 2001-10-10
   PRIOR APPLICATION NUMBER: EP 00203518.6
   PRIOR FILING DATE: 2000-10-11
  NUMBER OF SEQ ID NOS: 65
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 30
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial
    FEATURE:
    OTHER INFORMATION: HCDR3 of 1fld.pdb
US-10-411-869A-30
                          27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
            3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
  Matches
            5 RER 7
QУ
              111
            2 RER 4
Db
RESULT 68
US-10-378-173-136
; Sequence 136, Application US/10378173
; Publication No. US20030232014A1
; GENERAL INFORMATION:
  APPLICANT: Burke et al.
; TITLE OF INVENTION: PHOSPHORYLATED PROTEINS AND USES RELATED THERETO
; FILE REFERENCE: MDSP-P01-023
```

```
CURRENT APPLICATION NUMBER: US/10/378,173
  CURRENT FILING DATE: 2003-03-03
  PRIOR APPLICATION NUMBER: 60/360787
  PRIOR FILING DATE: 2002-03-01
  NUMBER OF SEQ ID NOS: 231
  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 136
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: phosphorylated peptide
    FEATURE:
   NAME/KEY: MISC FEATURE
    LOCATION: (3)..(3)
   OTHER INFORMATION: phosphorylation
    FEATURE:
    NAME/KEY: MISC FEATURE
    LOCATION: (4)..(4)
    OTHER INFORMATION: phosphorylation
US-10-378-173-136
                          27.3%; Score 3; DB 15; Length 11;
  Query Match
                         100.0%; Pred. No. 8.9e+03;
  Best Local Similarity
                                                  0; Indels
                                                                0; Gaps
           3; Conservative
                              0; Mismatches
  Matches
            7 RKS 9
QУ
              III
            1 RKS 3
Db
RESULT 69
US-10-014-099F-30
; Sequence 30, Application US/10014099F
; Publication No. US20040003420A1
; GENERAL INFORMATION:
  APPLICANT: KUEHN, Ralf
   APPLICANT: FELDER, Susanne
   APPLICANT: SCHWENK, Frieder
  APPLICANT: KUETER-LUKS, Birgit
  APPLICANT: FAUST, Nicole
  TITLE OF INVENTION: Modified Recombinase
  FILE REFERENCE: 012787wo/JH/ml
  CURRENT APPLICATION NUMBER: US/10/014,099F
  CURRENT FILING DATE: 2001-11-12
   NUMBER OF SEQ ID NOS: 108
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
    LENGTH: 11
    TYPE: PRT
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence: NLS
US-10-014-099F-30
                          27.3%; Score 3; DB 15; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.9e+03;
```

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Matches 3; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
           7 RKS 9
Qу
             111
            4 RKS 6
Db
RESULT 70
US-10-443-622-90
; Sequence 90, Application US/10443622
; Publication No. US20040024192A1
; GENERAL INFORMATION:
  APPLICANT: Carter et al.
  TITLE OF INVENTION: 19 Human Secreted Proteins
  FILE REFERENCE: PZ009P1
   CURRENT APPLICATION NUMBER: US/10/443,622
  CURRENT FILING DATE: 2003-05-23
;
; PRIOR APPLICATION NUMBER: PCT/US98/13608
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: 60/051,480
  PRIOR FILING DATE: 1997-07-01
  PRIOR APPLICATION NUMBER: 60/051,381
 PRIOR FILING DATE: 1997-07-01
 PRIOR APPLICATION NUMBER: 60/058,663
;
  PRIOR FILING DATE: 1997-09-12
;
  PRIOR APPLICATION NUMBER: 60/058,598
;
  PRIOR FILING DATE: 1997-09-12
;
; NUMBER OF SEQ ID NOS: 156
  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 90
   LENGTH: 11
   TYPE: PRT
   ORGANISM: Homo sapiens
US-10-443-622-90
  Query Match
                         27.3%; Score 3; DB 16; Length 11;
 Best Local Similarity 100.0%; Pred. No. 8.9e+03;
          3; Conservative 0; Mismatches 0; Indels
                                                              0; Gaps
                                                                           0;
           4 TRE 6
             3 TRE 5
RESULT 71
US-08-996-470-2
; Sequence 2, Application US/08996470A
; Publication No. US20020077314A1
; GENERAL INFORMATION:
; APPLICANT: Falk
  TITLE OF INVENTION: Use of Hyaluronic Acid and Forms to Prevent Arterial
  TITLE OF INVENTION: Restenosis
 FILE REFERENCE:
  CURRENT APPLICATION NUMBER: US/08/996,470A
 CURRENT FILING DATE: 1997-12-22
; EARLIER APPLICATION NUMBER: US 07/675,908
; EARLIER FILING DATE: 1991-07-03
```

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EARLIER APPLICATION NUMBER: US 07/838,674
   EARLIER FILING DATE: 1992-02-21
   EARLIER APPLICATION NUMBER: US 07/838,675
   EARLIER FILING DATE: 1992-02-21
   EARLIER APPLICATION NUMBER: US 08/125,398
   EARLIER FILING DATE: 1993-09-23
   EARLIER APPLICATION NUMBER: US 08/285,764
   EARLIER FILING DATE: 1994-08-03
   EARLIER APPLICATION NUMBER: US 07/952,095
   EARLIER FILING DATE: 1992-09-28
  NUMBER OF SEQ ID NOS: 2
   SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 2
   LENGTH: 11
;
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: BINDING
   LOCATION: (1)..(11)
   OTHER INFORMATION: Scrambled peptide consisting of randomly arranged
   OTHER INFORMATION: amino acids 401-411 located in the hyaluronic acid
   OTHER INFORMATION: binding region of RHAMM
US-08-996-470-2
                          18.2%; Score 2; DB 8; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 8.5e+04;
                               0; Mismatches
  Matches
            2; Conservative
                                                   0;
                                                                  0;
                                                                              0:
                                                        Indels
                                                                      Gaps
            8 KS 9
Qу
              11
Db
           10 KS 11
RESULT 72
US-08-424-550B-223
; Sequence 223, Application US/08424550B
 Publication No. US20020119447A1
   GENERAL INFORMATION:
    APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS
    APPLICANT: GEORGE J. DAWSON
    APPLICANT: GEORGE G. SCHLAUDER
    APPLICANT: SURESH M. DESAI
    APPLICANT: THOMAS P. LEARY
APPLICANT: ANTHONY SCOTT MUERHOFF
     APPLICANT: JAMES C. ERKER
     APPLICANT: SHERI L. BUIJK
     APPLICANT: ISA K. MUSHAHWAR
     TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
                          REAGENTS AND METHODS FOR THEIR USE
     TITLE OF INVENTION:
     NUMBER OF SEQUENCES: 716
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
       STREET: 100 ABBOTT PARK ROAD
       CITY: ABBOTT PARK
       STATE: IL
       COUNTRY: USA
```

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ZIP: 60064-3500
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/424,550B
      FILING DATE:
      CLASSIFICATION: 435435
    ATTORNEY/AGENT INFORMATION:
      NAME: POREMBSKI, PRISCILLA E.
      REGISTRATION NUMBER: 33,207
      REFERENCE/DOCKET NUMBER: 5527.PC.01
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
  INFORMATION FOR SEQ ID NO: 223:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-424-550B-223
                         18.2%; Score 2; DB 8; Length 11;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 8.5e+04;
                                                                 0; Gaps
                                                                             0;
          2; Conservative 0; Mismatches 0; Indels
            4 TR 5
Qу
              11
           10 TR 11
Db
RESULT 73
US-08-424-550B-523
; Sequence 523, Application US/08424550B
; Publication No. US20020119447A1
  GENERAL INFORMATION:
     APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS APPLICANT: GEORGE J. DAWSON
;
    APPLICANT: GEORGE G. SCHLAUDER
    APPLICANT: SURESH M. DESAI
     APPLICANT: THOMAS P. LEARY
     APPLICANT: ANTHONY SCOTT MUERHOFF
     APPLICANT: JAMES C. ERKER
     APPLICANT: SHERI L. BUIJK
     APPLICANT: ISA K. MUSHAHWAR
;
     TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
     TITLE OF INVENTION: REAGENTS AND METHODS FOR THEIR USE
     NUMBER OF SEQUENCES: 716
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
       STREET: 100 ABBOTT PARK ROAD
       CITY: ABBOTT PARK
       STATE: IL
```

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COUNTRY: USA
      ZIP: 60064-3500
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/424,550B
      FILING DATE:
      CLASSIFICATION: 435435
    ATTORNEY/AGENT INFORMATION:
      NAME: POREMBSKI, PRISCILLA E.
      REGISTRATION NUMBER: 33,207
      REFERENCE/DOCKET NUMBER:
                                5527.PC.01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
  INFORMATION FOR SEQ ID NO: 523:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-424-550B-523
                         18.2%; Score 2; DB 8; Length 11;
 Query Match
Best Local Similarity 100.0%; Pred. No. 8.5e+04;
           2; Conservative
                               0; Mismatches 0; Indels
                                                               0;
                                                                   Gaps
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 Matches
           1 AR 2
Qу
             11
           8 AR 9
RESULT 74
US-08-424-550B-550
; Sequence 550, Application US/08424550B
; Publication No. US20020119447A1
  GENERAL INFORMATION:
    APPLICANT: JOHN N. SIMONS
    APPLICANT: TAMI J. PILOT-MATIAS
    APPLICANT: GEORGE J. DAWSON
    APPLICANT: GEORGE G. SCHLAUDER
    APPLICANT: SURESH M. DESAI
    APPLICANT:
                THOMAS P. LEARY
    APPLICANT: ANTHONY SCOTT MUERHOFF
    APPLICANT: JAMES C. ERKER
    APPLICANT: SHERI L. BUIJK
    APPLICANT: ISA K. MUSHAHWAR
    TITLE OF INVENTION: NON-A, NON-B. NON-C, NON-D, NON-E HEPATITIS
    TITLE OF INVENTION: REAGENTS AND METHODS FOR THEIR USE
    NUMBER OF SEQUENCES: 716
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: ABBOTT LABORATORIES D377/AP6D
       STREET: 100 ABBOTT PARK ROAD
      CITY: ABBOTT PARK
```

```
STATE: IL
;
      COUNTRY: USA
      ZIP: 60064-3500
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/424,550B
      FILING DATE:
      CLASSIFICATION: 435435
    ATTORNEY/AGENT INFORMATION:
      NAME: POREMBSKI, PRISCILLA E.
      REGISTRATION NUMBER: 33,207
;
      REFERENCE/DOCKET NUMBER: 5527.PC.01
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 708-937-6365
      TELEFAX: 708-938-2623
  INFORMATION FOR SEQ ID NO: 550:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-424-550B-550
                         18.2%; Score 2; DB 8; Length 11;
  Query Match
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           2; Conservative 0; Mismatches 0; Indels
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 Matches
           8 KS 9
Qу
             11
            4 KS 5
Db
RESULT 75
US-08-809-423A-5
; Sequence 5, Application US/08809423A
; Publication No. US20020169104A1
  GENERAL INFORMATION:
    APPLICANT: FRANK, GLENN R.
    APPLICANT: HUNTER, SHIRLEY WU
    APPLICANT: WALLENFELS, LYNDA
    TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
    TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
    NUMBER OF SEQUENCES: 56
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Sheridan Ross & McIntosh
;
       STREET: 1700 Lincoln Street, Suite 3500
      CITY: Denver
       STATE: Colorado
      COUNTRY: U.S.A.
      ZIP: 80203
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/809,423A
      FILING DATE:
      CLASSIFICATION:
    ATTORNEY/AGENT INFORMATION:
      NAME: CONNELL, GARY J.
      REGISTRATION NUMBER: 32,020
      REFERENCE/DOCKET NUMBER: 2618-17-C2PCT
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (303) 863-9700
       TELEFAX: (303) 863-0223
;
   INFORMATION FOR SEQ ID NO: 5:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-809-423A-5
 Query Match 18.2%; Score 2; DB 8; Length 11; Best Local Similarity 100.0%; Pred. No. 8.5e+04;
          2; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                              0;
 Matches
            3 KT 4
Qу
             11
            6 KT 7
```

Search completed: April 8, 2004, 16:35:46 Job time: 31.3077 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 27.7692 Seconds Run on:

(without alignments)

124.984 Million cell updates/sec

US-09-787-443A-14 Title:

Perfect score: 11

1 ARKTRERKSKD 11 Sequence:

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

1017041 seqs, 315518202 residues Searched:

Word size :

Total number of hits satisfying chosen parameters: 460

Minimum DB seq length: 11 Maximum DB seq length: 11

Post-processing: Listing first 100 summaries

Database : SPTREMBL 25:*

1: sp archea:*

2: sp_bacteria:*

3: sp_fungi:*

4: sp_human:*

5: sp_invertebrate:*

6: sp_mammal:*

7: sp mhc:*

8: sp organelle:*

9: sp_phage:*

10: sp_plant:*

11: sp_rodent:*

12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*

15: sp_rvirus:*

16: sp_bacteriap:*

17: sp archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

કૃ

Result Query

Score Match Length DB ID

Description

1	3	27.3	11	4	094785	O94785 homo sapien
2	3	27.3	11	4	Q9H3V7	Q9h3v7 homo sapien
3	3	27.3	$\overline{11}$	10	Q9S8X4	Q9s8x4 glycine max
4	3	27.3	11	11	Q9JLE6	Q9jle6 rattus norv
5	2	18.2	11	2	Q8RKN1	Q8rkn1 escherichia
6	2	18.2	11	2	P77404	P77404 escherichia
7	2	18.2	11	2	Q8RMI8	Q8rmi8 enterococcu
8	2	18.2	11	2	Q9K332	Q9k332 staphylococ
9	2	18.2	11	2	Q47345	Q47345 escherichia
10	2	18.2	11	2	Q9R872	Q9r872 escherichia
11	2	18.2	11	2	Q91UY9	Q91uy9 escherichia
12	2	18.2	11	3	Q9C1R7	Q9c1r7 saccharomyc
13	2	18.2	11	4	Q14759	Q14759 homo sapien
14	2	18.2	11	4	Q9Y3G2	Q9y3g2 homo sapien Q16427 homo sapien
15	2	18.2	11	4	Q16427	Q9ucp5 homo sapien
16	2	18.2	11	4	Q9UCP5	Q9uc46 homo sapien
17	2	18.2	11	4 5	Q9UC46 Q25916	Q25916 plasmodium
18	2	18.2	11 11	5	Q23910 Q9NFX0	Q9nfx0 drosophila
19	2 2	18.2 18.2	11	5	Q8MM58	Q8mm58 heliconius
20	2	18.2	11	5	Q95PX6	Q95px6 caenorhabdi
21 22	2	18.2	11	6	Q9TRW5	Q9trw5 bos taurus
23	2	18.2	11	6	Q9TQS0	Q9tqs0 bos taurus
24	2	18.2	11	7	078119	078119 oreochromis
25	2	18.2	11	7	077911	077911 oreochromis
26	2	18.2	11	7	077908	077908 oreochromis
27	2	18.2	11	7	077893	077893 oreochromis
28	2	18.2	11	8	Q94V94	Q94v94 varanus sto
29	2	18.2	11	8	Q9G646	Q9g646 sitana pont
30	2	18.2	11	8	Q9G5W2	Q9g5w2 laudakia tu
31	2	18.2	11	8	Q9G631	Q9g631 calotes nig
32	2	18.2	11	8	Q9G622	Q9g622 salea horsf
33	2	18.2	11	8	Q94VG8	Q94vg8 varanus gou
34	2	18.2	11	8	Q9G365	Q9g365 calotes emm Q9g5y6 agama agama
35	2	18.2	11	8	Q9G5Y6	Q9g3yo agama agama Q8mel7 sida hooker
36	2	18.2	11	8	Q8MEL7	Q9q5y0 pseudotrape
37	2	18.2	11	8	Q9G5Y0 Q9G5W5	Q9g5y0 pseudociape Q9g5w5 laudakia nu
38	2	18.2	11	8 8	Q9G5W3 Q9G607	Ogg607 aphaniotis
39	2	18.2 18.2	11 11	8	Q9G007 Q94V77	Q94v77 heloderma s
40	2 2	18.2	11	8	Q9G628	Q9g628 calotes mys
41 42	2	18.2	11	8	079985	079985 laudakia ca
43	2	18.2	11	8	Q94VI5	Q94vi5 varanus exa
44	2	18.2	11	8	Q9G359	Q9g359 japalura fl
45	2	18.2	11	8	Q8MEM2	Q8mem2 lagunaria p
46	2	18.2	11	8	~ Q9G649	Q9g649 otocryptis
47	2	18.2	11	8	Q9G643	Q9g643 calotes cal
48	2	18.2	11	8	Q9G5X4	Q9g5x4 trapelus ag
49	2	18.2	11	8	Q94V74	Q94v74 lanthanotus
50	2	18.2	11	8	Q8MES5	Q8mes5 abelmoschus
51	2	18.2	11	8	Q9G616	Q9g616 ceratophora
52	2	18.2	11	8	Q9G350	Q9g350 laudakia sa
. 53	2	18.2	11	8	Q9G610	Q9g610 lyriocephal
54	2	18.2	11	8	079636	079636 laudakia hi
55	2	18.2	11	8	Q9G5Z8	Q9g5z8 acanthosaur
56	2	18.2	11	8	Q9G5W8	Q9g5w8 trapelus sa Q8mep0 hibiscus pe
57	2	18.2	11	8	Q8MEP0	δοιαείου μτητες με

58	2	18.2	11	8	Q8MER8	Q8mer8 dombeya til
59	2	18.2	11	8	Q9G5V3	Q9g5v3 phrynocepha
60	2	18.2	11	8	Q94VE7	Q94ve7 varanus kom
61	2	18.2	11	8	Q8WES0	Q8wes0 ceratophora
62	2	18.2	11	8	Q94VB8	Q94vb8 varanus sal
63	2	18.2	11	8	Q9G634	Q9g634 calotes lio
64	2	18.2	11	8	Q9G353	Q9g353 trapelus sa
65	2	18.2	11	8	079642	079642 laudakia mi
66	2	18.2	11	8	Q8MES1	Q8mes1 alyogyne pi
67	2	18.2	11	8	Q94VH7	Q94vh7 varanus gil
68	2	18.2	11	8	Q8SKR0	Q8skr0 rankinia di
69	2	18.2	11	8	Q9G601	Q9g601 bronchocela
70	2	18.2	11	8	Q8MEP3	Q8mep3 hibiscus no
71	2	18.2	11	8	Q9G619	Q9g619 ceratophora
72	2	18.2	11	8	Q8WER7	Q8wer7 ceratophora
73	2	18.2	11	8	Q8WD50	Q8wd50 ceratophora
74	2	18.2	11	8	Q94VK1	Q94vkl varanus aca
75	2	18.2	11	8	Q9G5X7	Q9g5x7 trapelus ru
76	2	18.2	11	8	Q9G356	Q9g356 agama atra
77	2	18.2	11	8	079639	079639 laudakia le
78	2	18.2	11	8	Q8MEQ7	Q8meq7 hibiscus dr
79	2	18.2	11	8	Q9G613	Q9g613 cophotis ce
80	2	18.2	11	8	Q9G5V0	Q9g5v0 laudakia st
81	2	18.2	11	8	Q8MEL9	Q8mel9 pavonia has
82	2	18.2	11	8	29G5V6	Q9g5v6 phrynocepha
83	2	18.2	11	8	Q9G5X1	Q9g5x1 trapelus pe
84	2	18.2	11	8	Q9G625	Q9g625 calotes ver
85	2	18.2	11	8	Q9G5Z5	Q9g5z5 japalura sp
86	2	18.2	11	8	Q9G5Z2	Q9g5z2 pseudocalot
87	2	18.2	$\overline{11}$	8	09G640	Q9g640 calotes cey
88	2	18.2	11	8	Q8MER0	Q8mer0 hibiscus co
89	2	18.2	11	8	Q8MES3	Q8mes3 alyogyne cr
90	2	18.2	11	8	Q8WER4	Q8wer4 ceratophora
91	2	18.2	11	8	Q8MEP5	Q8mep5 hibiscus mi
92	2	18.2	11	8	079986	079986 laudakia er
93	2	18.2	11	8	Q8MER1	Q8mer1 hibiscus ca
94	2	18.2	11	8	Q9G604	Q9g604 gonocephalu
95	2	18.2	11	8	Q9G652	Q9g652 japalura va
96	2	18.2	11	8	Q9G655	Q9g655 japalura tr
97	2	18.2	11	8	Q9G637	Q9g637 calotes lio
98	2	18.2	11	8	Q9G5V9	Q9g5v9 laudakia st
99	2	18.2	11	8	Q9G5Y9	Q9q5y9 pseudocalot
100	2	18.2	11	8	Q8MER7	Q8mer7 fioria viti
100	2	10.2	-1	0	ZOLIDICA	E

ALIGNMENTS

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RESULT 1
094785
                                                               11 AA.
                      PRELIMINARY;
                                                   PRT;
       094785
ID
AC
       094785;
       01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DΤ
DT
DT
DE
       Thrombopoietin (Fragment).
       Homo sapiens (Human).
OS
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Sasaki Y., Takahashi T., Nakamura K., Okuno Y., Nakao K.;
RA
     "Production of Thrombopoietin by Human Carcinomas and Its Novel mRNA
RT
     Isoforms.";
RT
     Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AB014683; BAA34932.1; -.
FT
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                                                                  0; Gaps
             3; Conservative
                                 0; Mismatches
Qу
            4 TRE 6
              \mathbf{I}
Db
            8 TRE 10
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Q9H3V7
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                                   PRT;
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AC
     09H3V7;
     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Aquaporin-4 (Fragment).
DΕ
     AQP4.
GN
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
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RP
     MEDLINE=97008105; PubMed=8855281;
RX
     Lu M., Lee M.D., Smith B.L., Jung J.S., Agre P., Verdijk M.A.J.,
RA
     Merkx G., Rijss J.P.L., Deen P.M.T.;
RA
     "The human AQP4 gene: definition of the locus encoding two water
RT
     channel polypeptides in brain.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 93:10908-10912(1996).
RL
     EMBL; U63613; AAG17964.1; -.
DR
     GO; GO:0005372; F:water transporter activity; NAS.
DR
     GO; GO:0006833; P:water transport; NAS.
DR
KW
     Porin.
     NON TER
FT
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                          1
                  11
                         11
FT
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                                  379D9CA311AEB737 CRC64;
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                                                                               0;
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                                                    0; Indels
  Matches
             3; Conservative
            4 TRE 6
Qу
              111
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RESULT 3
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                                   PRT;
ID
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                 PRELIMINARY;
AC
     Q9S8X4;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
    Vegetative storage protein 94 peptide 3, VSP94=LIPOXYGENASE
DΕ
     (Fragment).
DΕ
     Glycine max (Soybean).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
OC
OX
     NCBI TaxID=3847;
RN
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RP
     SEQUENCE.
    MEDLINE=92361246; PubMed=1822994;
RX
     Tranbarger T.J., Franceschi V.R., Hildebrand D.F., Grimes H.D.;
RA
     "The soybean 94-kilodalton vegetative storage protein is a
RT
     lipoxygenase that is localized in paraveinal mesophyll cell
RT
RT
     vacuoles.";
     Plant Cell 3:973-987(1991).
RL
FT
     NON TER
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                          1
     NON TER
                  11
                         11
FT
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SQ
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  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
             3; Conservative
                               0; Mismatches
                                                  0; Indels
  Matches
            5 RER 7
Qy
              \mathbf{I}
            8 RER 10
Db
RESULT 4
Q9JLE6
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                                            11 AA.
                 PRELIMINARY;
     Q9JLE6
ID
     Q9JLE6;
AC
     01-OCT-2000 (TrEMBLrel. 15, Created)
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DT
     Thioredoxin reductase (Fragment).
DE
     Rattus norvegicus (Rat).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
OX
     NCBI TaxID=10116;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Rundlof A.-K., Arner E.S.J.;
RA
     "Genomic sequence of parts of the rat thioredoxin reductase 1 gene.";
RT
     Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF189711; AAF26304.1; -.
DR
                          11
     NON TER
                  11
FT
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  Best Local Similarity
             3; Conservative 0; Mismatches
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
  Matches
            9 SKD 11
Qу
              \parallel \parallel \parallel
            4 SKD 6
Db
RESULT 5
O8RKN1
                 PRELIMINARY;
                                    PRT;
                                            11 AA.
ID
     Q8RKN1
AC
     Q8RKN1;
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DE
     Beta-lactamase CTX-M-9 (Fragment).
GN
     BLACTX-M-9.
OS
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
OC
     Enterobacteriaceae; Escherichia.
     NCBI TaxID=562;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=743-D;
RC
     Sabate M., Navarro F., Miro E., Campoy S., Mirelis B., Barbe J.,
RA
RA
     Prats G.;
     "A novel complex sull-type integron in Escherichia coli carrying the
RT
RT
     bla(CTX-M-9) gene.";
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY092058; AAM15718.1; -.
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                          1
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SQ
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  Query Match
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  Best Local Similarity
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                                                                               0;
             2; Conservative 0; Mismatches 0; Indels
            1 AR 2
Qу
              \perp
            4 AR 5
RESULT 6
P77404
                                    PRT;
                                            11 AA.
     P77404
                  PRELIMINARY;
ID
     P77404;
AC
     01-FEB-1997 (TrEMBLrel. 02, Created)
     01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
     01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DT
     DNA sequence downstream of the ECOPRRI HSD locus (Fragment).
DE
GN
     HSDR.
os
     Escherichia coli.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
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OX
    NCBI TaxID=562;
RN
     SEQUENCE FROM N.A.
RΡ
    MEDLINE=97206151; PubMed=9157244;
RX
     Tyndall C., Lehnherr H., Sandmeier U., Kulik E., Bickle T.A.;
RA
     "The type IC hsd loci of the enterobacteria are flanked by DNA with
RT
     high homology to the phage P1 genome: implications for the evolution
RT
     and spread of DNA restriction systems.";
RT
    Mol. Microbiol. 23:729-736(1997).
RL
     EMBL; X98145; CAA66840.1; -.
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     EMBL; X98144; CAA66839.1; -.
DR
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FT
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  Best Local Similarity
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                                                                              0;
                                                 0; Indels
                                                                  0; Gaps
            2; Conservative
            8 KS 9
Qу
              \mathbf{H}
            1 KS 2
Db
RESULT 7
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AC .
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DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DΕ
     ErmB (Fragment).
GN
     ERMB.
     Enterococcus hirae.
OS
OG
     Plasmid pMKH1.
     Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
OC
     NCBI TaxID=1354;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     Borgen K., Sorum M., Wasteson Y., Kruse H., Oppegaard H.;
RA
     "Genetic linkage between ermB and vanA in Enterococcus hirae of
RT
     poultry origin.";
RT
     Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RL
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DR
     GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
     Plasmid.
ΚŴ
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FT
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  Best Local Similarity
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                                                  0; Indels
                                                                  0; Gaps
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             2; Conservative
                               0; Mismatches
            2 RK 3
Qу
              \prod
Db
           10 RK 11
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                                   PRT;
                                            11 AA.
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AC
     Q9K332;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Geh (Fragment).
     GEH.
GN
OS
     Staphylococcus aureus.
     Bacteria; Firmicutes; Bacillales; Staphylococcus.
OC
     NCBI TaxID=1280;
OX
RN
     [1]
RΡ
     SEOUENCE FROM N.A.
RC
     STRAIN=VARIOUS STRAINS;
RX
    MEDLINE=20187516; PubMed=10722640;
RA
     Cramton S.E., Schnell N.F., Gotz F., Bruckner R.;
RT
     "Identification of a new repetitive element in Staphylococcus
     aureus.";
RT
   Infect. Immun. 68:2344-2348(2000).
RL
DR
     EMBL; AF195967; AAF60251.1; -.
DR
     EMBL; AF195963; AAF60243.1; -.
     EMBL; AF195964; AAF60245.1; -.
DR
     EMBL; AF195965; AAF60247.1; -.
DR
     EMBL; AF195966; AAF60249.1; -.
DR
FT
     NON TER
                   1
     SEQUENCE
                11 AA; 1262 MW; 4F978F86AAB1A723 CRC64;
SO
                          18.2%; Score 2; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
             2; Conservative
                               0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
            3 KT 4
Qу
              11
            1 KT 2
RESULT 9
Q47345
                                   PRT;
                                            11 AA.
ID
     Q47345
                 PRELIMINARY;
     047345;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Leader peptide.
DE
     Escherichia coli.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=K12;
     Faber F., van Giezen M., Van Gorcom R.F.M., Harder W.;
RA
     "Identification of two Escherichia coli K12 proteins which are induced
RT
     in response to pollutant stress.";
RT
     Submitted (APR-1996) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [2]
```

```
SEQUENCE OF 2-11 FROM N.A.
RP
     STRAIN=K12;
RC
     MEDLINE=85134883; PubMed=6396419;
RX
     Hudson G.S., Davidson B.E.;
RA
     "Nucleotide sequence and transcription of the phenylalanine and
RT
     tyrosine operons of Escherichia coli K12.";
RT
     J. Mol. Biol. 180:1023-1051(1984).
RL
     EMBL; Z70523; CAA94435.1; -.
DR
               11 AA; 1402 MW; 87AB199204141775 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 2; Length 11;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                                                    0; Indels
                                                                              0;
 Matches
            2; Conservative
                               0; Mismatches
                                                                  0; Gaps
            5 RE 6
Qy
              Db
            7 RE 8
RESULT 10
09R872
ID
     Q9R872
                 PRELIMINARY;
                                   PRT;
                                           11 AA.
AC.
     Q9R872;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Dihydrofolate reductase (Fragment).
DE
     DFR1.
GN
     Escherichia coli.
OS
OG
     Plasmid r483.
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Escherichia.
OC
     NCBI TaxID=562;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     TRANSPOSON=Tn7;
     Hansson K., Sundstrom L., Pelletier A., Roy P.H.;
RA
     "Sequence and function of the second type of integron in Tn7.";
RT
     Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
     TRANSPOSON=Tn7;
RC
     MEDLINE=82220022; PubMed=6283361;
RX
     Lichtenstein C., Brenner S.;
RA
     "Unique insertion site of Tn7 in the E. coli chromosome.";
RT
     Nature 297:601-603(1982).
RL
RN
RP
     SEQUENCE FROM N.A.
     TRANSPOSON=Tn7:
RC
RX
     MEDLINE=83290694; PubMed=6411680;
     Simonsen C.C., Chen E.Y., Levinson A.D.;
RA.
RT
     "Identification of the type I trimethoprim-resistant dihydrofolate
     reductase specified by the Escherichia coli R-plasmid R483: Comparison
RT
     with procaryotic and eucaryotic dihydrofolate reductases.";
RT
RL
     J. Bacteriol. 155:1001-1008(1983).
RN
RP
     SEQUENCE FROM N.A.
```

```
TRANSPOSON=Tn7;
RC
    MEDLINE=83272957; PubMed=6308574;
RX
    Fling M.E., Richards C.;
RA
     "The nucleotide sequence of the trimethoprim-resistant dihydrofolate
RT
     reductase gene harbored by Tn7.";
RT
    Nucleic Acids Res. 11:5147-5158(1983).
RL
    EMBL; AJ001816; CAA05032.1; -.
DR
    GO; GO:0046821; C:extrachromosomal DNA; IEA.
DR
KW
    Plasmid.
FT
    NON TER
                  11
                         11
    SEQUENCE
                11 AA; 1221 MW; 92014864C2C69735 CRC64;
SQ
                          18.2%; Score 2; DB 2; Length 11;
 Ouerv Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            2; Conservative
            9 SK 10
              10 SK 11
Db
RESULT 11
Q91UY9
ΙD
    Q91UY9
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
    Q91UY9;
     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
     01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
     Insertion site for insertion element IS903.B, upstream of kanamycin
DE
     resistance gene (Fragment).
DE
OS
     Escherichia coli.
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Escherichia.
OC
    NCBI TaxID=562;
OX
RN
    [1]
     SEQUENCE FROM N.A.
RP
    TRANSPOSON=Tn2680;
RC
    MEDLINE=85234397; PubMed=2989253;
RX
    Mollet B., Clerget M., Meyer J., Iida S.;
RA
     "Organization of the Tn6-related kanamycin resistance transposon
RT
    Tn2680 carrying two copies of IS26 and an IS903 variant, IS903.B.";
RT
RL
     J. Bacteriol. 163:55-60(1985).
    EMBL; M11420; AAA27427.1; -.
DR
FT
    NON TER
                  11
                         11
                11 AA; 1278 MW; 03902598AB0416D0 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 2; Length 11;
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
            2; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            5 RE 6
Qу
              Dh
            6 RE 7
```

RESULT 12 Q9C1R7

```
PRT:
                                           11 AA.
ΙD
    Q9C1R7
                 PRELIMINARY;
АC
     09C1R7;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
DΕ
     Ssulp (Fragment).
GN
     SSU1.
     Saccharomyces cerevisiae (Baker's yeast).
OS
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
     Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OC
OX
     NCBI TaxID=4932;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=T73;
     Perez-Ortin J.E.;
RA
     Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF239758; AAK15080.1; -.
DR
FT
     NON TER
                  11
                         11
                11 AA; 1274 MW; 12567614D732D374 CRC64;
SQ
     SEQUENCE
                          18.2%; Score 2; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
                               0; Mismatches
                                                  0; Indels
  Matches
             2; Conservative
            4 TR 5
Qy
              11
Db
           10 TR 11
RESULT 13
014759
                                   PRT;
     Q14759
                 PRELIMINARY;
                                           11 AA.
ID
     Q14759;
AC
     01-NOV-1996 (TrEMBLrel. 01, Created)
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Lymphocyte cytosolic protein 2 (Fragment).
DE
GN
     LCP2.
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Sunden S.L.F., Carr L.L., Clements J.L, Motto D.G., Koretzky G.A.;
RA
     "Polymorphism in and localization of the gene encoding the 76 kDa SH2
RT
     domain-containing Leukocyte Protein (SLP-76) to chromosome 5q33.1-
RT
     qter.";
RT
     Genomics 0:0-0(1995).
RL
DR
     EMBL; U44065; AAA93308.1; -.
FT
     NON TER
                   1
                          1
FT
     NON TER
                  11
                         11
     SEQUENCE
                11 AA; 1242 MW; D695104224072DDD CRC64;
SQ
  Query Match
                          18.2%; Score 2; DB 4; Length 11;
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                    0;
                                                       Indels
                                                                  0; Gaps
                                                                              0;
                Conservative
  Matches
             2;
```

```
2 RK 3
QУ
              7 RK 8
Db
RESULT 14
Q9Y3G2
                                             11 AA.
     Q9Y3G2
                 PRELIMINARY;
                                    PRT;
ΙD
AC
     09Y3G2;
     01-NOV-1999 (TrEMBLrel. 12, Created)
DT
     01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DE.
     LSFR2 protein (Fragment).
GN
     LSFR2.
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=99299247; PubMed=10369878;
RX
     Gilley J., Fried M.;
RA
     "Extensive gene order differences within regions of conserved synteny
RT
     between the Fugu and human genomes: implications for chromosomal
RT
     volution and the cloning of disease genes.";
RT
     Hum. Mol. Genet. 8:1313-1320(1999).
RL
     EMBL; Y17456; CAB44349.1; -.
DR
     NON_TER
                   1
                           1
FT
     NON TER
FT
                   11
                          11
                11 AA; 1342 MW; 68C5E5D7A8772324 CRC64;
     SEQUENCE
SO
                           18.2%; Score 2; DB 4; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                                 0;
                                                    0; Indels
                                                                    0; Gaps
             2; Conservative
                                0; Mismatches
            2 RK 3
Qу
               \Pi
            4 RK 5
RESULT 15
016427
                  PRELIMINARY;
                                    PRT;
                                             11 AA.
     Q16427
ID
AC
     Q16427;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
DT
DT
     Dystrophin protein (Fragment).
DE
GN
     DYSTROPHIN.
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
     MEDLINE=96163501; PubMed=8566960;
RX
```

```
RA
     Holder E., Maeda M., Bies R.D.;
     "Expression and regulation of the dystrophin Purkinje promoter in
RT
     human skeletal muscle, heart, and brain.";
RT
     Hum. Genet. 97:232-239(1996).
RL
DR
     EMBL; S81419; AAD14362.1; -.
FT
     NON TER
                  11
                       1299 MW; DDCC84321AB5A5A2 CRC64;
     SEQUENCE
                11 AA;
SQ
 Query Match
                          18.2%; Score 2; DB 4; Length 11;
 Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                                                               0;
 Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            6 ER 7
QУ
              11
            8 ER 9
Db
RESULT 16
Q9UCP5
ΙD
     Q9UCP5
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
AC
     Q9UCP5;
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
     Aggrecan core protein (Fragment).
DΕ
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
     MEDLINE=92235266; PubMed=1569188;
RX
     Sandy J.D., Flannery C.R., Neame P.J., Lohmander L.S.;
RA
     J. Clin. Invest. 89:1512-1516(1992).
RL
     GO; GO:0005201; F:extracellular matrix structural constituent; TAS.
DR
     GO; GO:0006508; P:proteolysis and peptidolysis; NAS.
DR
     GO; GO:0001501; P:skeletal development; NAS.
DR
     NON TER
FT
                   1
                          1
     NON TER
                  11
                         11
FT
                                 8FBFE8DFE72042D5 CRC64;
     SEQUENCE
                11 AA; 1149 MW;
SQ
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                 0: Mismatches
                                                    0; Indels
                                                                      Gaps
                                                                               0;
  Matches
             2; Conservative
Qу
            1 AR 2
              11
            1 AR 2
Db
RESULT 17
Q9UC46
                                   PRT;
                                            11 AA.
     Q9UC46
                 PRELIMINARY;
ΙD
AC
     Q9UC46;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
```

```
Neutrophil inhibitor peptide, NIP=POLYMORPHONUCLEAR neutrophil
DE
     inhibitor peptide.
DE
     Homo sapiens (Human).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RX
     MEDLINE=96326114; PubMed=8703476;
     Cooper J.A.Jr., Culbreth R.R.;
RA
     "Characterization of a neutrophil inhibitor peptide harvested from
RT
     human bronchial lavage: homology to influenza A nucleoprotein.";
RT
     Am. J. Respir. Cell Mol. Biol. 15:207-215(1996).
RL
DR
     GO; GO:0005576; C:extracellular; NAS.
DR
     GO; GO:0030236; P:anti-inflammatory response; NAS.
                11 AA; 1262 MW; 951A1C3279C9DB45 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 4; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                               0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
  Matches
             2; Conservative
            5 RE 6
Qу
              11
            1 RE 2
Db
RESULT 18
Q25916
                                           11 AA.
                                   PRT;
ΙD
     Q25916
                 PRELIMINARY;
AC
     025916;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Malaria antigen (7H8/2) (Fragment).
DE
     Plasmodium falciparum.
OS
     Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
OC
     NCBI TaxID=5833;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     MEDLINE=91164876; PubMed=1706114;
RX
     Limpaiboon T., Taylor D., Jones G., Geysen H.M., Saul A.;
RA
     "Characterization of a Plasmodium falciparum epitope recognized by a
RT
     monoclonal antibody with broad isolate and species specificity.";
RT
     Southeast Asian J. Trop. Med. Public Health 21:388-396(1990).
RL
     EMBL; M31305; AAA29645.1; -.
DR
     NON TER
                   1
FT
                          1
                11 AA; 1415 MW; DB03D3BC42C33699 CRC64;
     SEOUENCE
SO
                          18.2%; Score 2; DB 5;
                                                   Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
  Matches
             2; Conservative
                                 0; Mismatches
                                                    0; Indels
            8 KS 9
Qу
              \Box
            1 KS 2
Db
```

```
RESULT 19
Q9NFX0
     Q9NFX0
                  PRELIMINARY;
                                    PRT;
                                             11 AA.
ΙD
AC
     Q9NFX0;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update) 01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DT
     Mitochondrial aconitase (Fragment).
DE
     ACON OR MAC OR CG9244.
     Drosophila melanogaster (Fruit fly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC
     Ephydroidea; Drosophilidae; Drosophila.
OC
OX
     NCBI TaxID=7227;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=CANTON S;
RC
RA
     Lind M.I.;
     "Charaterisation of two iron regulatory proteins and mitochondrial
RT
     aconitase in Drosophila melanogaster.";
RT
     Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AJ252019; CAB93522.1; -.
     FlyBase; FBgn0010100; Acon.
DR
     NON TER
                  11
FT
                          11
     SEQUENCE
                                  7C889CE4D4469734 CRC64;
                11 AA; 1204 MW;
SO
                           18.2%; Score 2; DB 5; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                  0; Mismatches
             2; Conservative
                                                     0; Indels
                                                                    0; Gaps
                                                                                0;
  Matches
            1 AR 2
Qу
              3 AR 4
Db
RESULT 20
Q8MM58
                                             11 AA.
                  PRELIMINARY;
                                    PRT;
     Q8MM58
ID
AC
     Q8MM58;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Mannose phosphate isomerase (Fragment).
DE
GN
     MPI.
     Heliconius cydno chioneus.
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
OC
     Papilionoidea; Nymphalidae; Heliconiinae; Heliconius.
OC
     NCBI TaxID=171915;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=STRI-B-553-Mpi-1, and STRI-B-553-Mpi-2;
RC
     Bull V., Beltran M., Bermingham E., Jiggins C., McMillan O.,
RA
RA
     Mallet J.;
     "Molecular evidence for gene flow between species of Heliconius.";
RT
     Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF516222; AAM61908.1; -.
DR
```

```
EMBL; AF516223; AAM61909.1; -.
DR
     GO; GO:0016853; F:isomerase activity; IEA.
DR
ΚW
     Isomerase.
    NON TER
                   1
                          1
FT
    NON TER
                  11
FT
                         11
                        1312 MW; 56A67DB31DD1EAA3 CRC64;
SO
     SEQUENCE
                11 AA;
                          18.2%; Score 2; DB 5; Length 11;
 Query Match
                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
 Matches
             2; Conservative
           10 KD 11
Qy
              II
Db
            4 KD 5
RESULT 21
095PX6
                                   PRT;
                                           11 AA.
ID
     Q95PX6
                 PRELIMINARY;
AC
     Q95PX6;
     01-DEC-2001 (TrEMBLrel. 19, Created)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Hypothetical protein.
DΕ
     ZK1236.8.
GN
     Caenorhabditis elegans.
OS
     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC
     Rhabditidae; Peloderinae; Caenorhabditis.
oc
OX
     NCBI TaxID=6239;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=Bristol N2;
     MEDLINE=99069613; PubMed=9851916;
RX
RA
     "Genome sequence of the nematode C. elegans: a platform for
RT
     investigating biology. The C. elegans Sequencing Consortium.";
RT
     Science 282:2012-2018(1998).
RL
RN
RP
     SEQUENCE FROM N.A.
     STRAIN=Bristol N2;
RC
     Favello A.;
RA
     "The sequence of C. elegans cosmid ZK1236.";
RT
     Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
RL
RN
     [3]
     SEQUENCE FROM N.A.
RP
     STRAIN=Bristol N2;
RC
     Waterston R.;
RA
     "Direct Submission.";
RT
     Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; L13200; AAL11108.1; -.
DR
DR
     WormPep; ZK1236.8; CE29629.
     Hypothetical protein.
KW
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SQ
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9 SK 10
Qγ
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            7 SK 8
Db
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     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     25 kDa protein P25, peptide F4 (Fragment).
DE
OS
     Bos taurus (Bovine).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
     NCBI TaxID=9913;
OX
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RP
     MEDLINE=91372400; PubMed=1909972;
RX
     Takahashi M., Tomizawa K., Ishiguro K., Sato K., Omori A., Sato S.,
RA
     Shiratsuchi A., Uchida T., Imahori K.;
RA
     "A novel brain-specific 25 kDa protein (p25) is phosphorylated by a
RT
     Ser/Thr-Pro kinase (TPK II) from tau protein kinase fractions.";
RT
     FEBS Lett. 289:37-43(1991).
RL
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FT
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FT
                                  CAF72DAF65A76AA9 CRC64;
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                                                                       Gaps
            2; Conservative
  Matches
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Qу
              | \cdot |
            2 ER 3
Db
RESULT 23
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AC
     O9TOSO;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     C-KIT (Fragment).
GN
     KIT.
OS
     Bos taurus (Bovine).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
     NCBI_TaxID=9913;
OX
RN
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RP
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     Olsen H.G., Vage D.I., Lien S., Klungland H.;
RA
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"A polymorphism in the bovine c-kit gene.";
RT
     Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
RL
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DR
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                        1126 MW;
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                                                    Length 11;
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Qу
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Db
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078119
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DT
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 1 (Fragment).
DΕ
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
OC
     Cichlidae; Oreochromis.
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RP
     MEDLINE=98315113; PubMed=9649539;
RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
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RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050017; AAC41356.1; -.
DR
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FT
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                                                                               0;
                                0; Mismatches
  Matches
             2; Conservative
            4 TR 5
Qу
              \Box
            8 TR 9
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                                    PRT;
TD
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AC
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\mathrm{D}\mathbf{T}
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     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
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DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
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OC
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OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
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RP
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RX
     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
     EMBL; AF050022; AAC41361.1; -.
DR
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FT
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                                  0; Mismatches
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Qy
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            8 ER 9
Db
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AC
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DT
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
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DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
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OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
OX
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RN
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     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
     class II B loci.";
RT
     Genetics 149:1527-1537(1998).
RL
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FT
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FT
     NON TER
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18.2%; Score 2; DB 7; Length 11;
 Query Match
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                                                                              0;
                               0; Mismatches
 Matches
             2; Conservative
            9 SK 10
Qу
              3 SK 4
Db
RESULT 27
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AC
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DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     MHC class II B locus 10 (Fragment).
DE
     Oreochromis niloticus (Nile tilapia) (Tilapia nilotica).
OS
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OC
     Actinopteryqii; Neopteryqii; Teleostei; Euteleostei; Neoteleostei;
OC
     Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Labroidei;
OC
     Cichlidae; Oreochromis.
OC
     NCBI TaxID=8128;
OX
RN
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RP
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     MEDLINE=98315113; PubMed=9649539;
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     Malaga-Trillo E., Zaleska-Rutczynska Z., McAndrew B., Vincek V.,
RA
     Figueroa F., Sultmann H., Klein J.;
RA
     "Linkage relationships and haplotype polymorphism among cichlid mhc
RT
RT
     class II B loci.";
     Genetics 149:1527-1537(1998).
RL
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                               0; Mismatches
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Qу
              11
            3 RE 4
Db
RESULT 28
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ID
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AC
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     01-DEC-2001 (TrEMBLrel. 19, Created)
DΤ
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Varanus storri.
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11 AA; 1261 MW; 4346CE9A7EB69EB3 CRC64;

SQ

SEQUENCE

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OG
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC
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OX
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Ast J.C.;
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
     Cladistics 17:0-0(2001).
RL
     EMBL; AF407531; AAL10145.1; -.
DR
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DR
     Mitochondrion.
KW
FT
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Qу
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Db
            4 TR 5
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
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OS
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
     Sitana.
OX
     NCBI TaxID=118235;
RN
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RP
     SEQUENCE FROM N.A.
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RP
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
RТ
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
RL
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DR
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DR
KW
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Qу
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Db
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DT
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
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OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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OC
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RX
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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KW
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Qy
              5 TR 6
Db
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FT

NON TER

11

11

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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
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GN
OS
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OG
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OC
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OC
OC
     Calotes.
     NCBI TaxID=118098;
OX
RN
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RX
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277 (2000).
RL
RN
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
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     GO; GO:0005739; C:mitochondrion; IEA.
DR
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Qy
              11
            5 TR 6
Db
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DT
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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DE
GN
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OS
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OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Draconinae;
OC
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OX
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RN
RP
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
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RT
     structural features illustrated with acrodont lizards.";
RT
RL
     Syst. Biol. 49:257-277(2000).
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
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RL
     Syst. Biol. 49:233-256(2000).
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                                                    Length 11;
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             2; Conservative
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                                                    0; Indels
                                                                   0; Gaps
  Matches
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Qу
              \mathbf{I}
            5 AR 6
Db
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ID
AC
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
     COI.
GN
     Varanus gouldii (Gould's monitor).
os
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OC
OX
     NCBI TaxID=62042;
RN
     [1]
     SEQUENCE FROM N.A.
RP
RA
     Ast J.C.;
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
RL
     Cladistics 17:0-0(2001).
     EMBL; AF407502; AAL10060.1; -.
DR
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DR
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ΚW
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     SEQUENCE
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SQ
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18.2%; Score 2; DB 8; Length 11;
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                                                       Indels
                                                                      Gaps
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 Matches
            4 TR 5
Qy
              11
            4 TR 5
Db
RESULT 34
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                                   PRT;
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     09G365
ID
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AC
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DT
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     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
     COI.
GN
OS
     Calotes emma.
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
     Calotes.
OX
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RN
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RP
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RX
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
     Mol. Biol. Evol. 14:30-39(1997).
RL
RN
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RP
     MEDLINE=22114082; PubMed=12118408;
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RP
     MEDLINE=22114081; PubMed=12118407;
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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KW
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                          100.0%; Pred. No. 1.1e+05;
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             2; Conservative
  Matches
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4 TR 5
Qу
              5 TR 6
Db
RESULT 35
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     Q9G5Y6
ΙD
     Q9G5Y6;
AC
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     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
     COI.
     Agama agama (Red-headed rock agama).
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae; Agama.
OC
OX
     NCBI TaxID=103336;
RN 
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RP
     SEQUENCE FROM N.A.
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
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     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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DR
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     Mitochondrion.
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FT
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SQ
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  Best Local Similarity
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  Matches
             2; Conservative
            3 KT 4
Qy
              11
            3 KT 4
RESULT 36
O8MEL7
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                                    PRT;
                                            11 AA.
ID
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AC
     Q8MEL7;
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
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RPL16.
GN
     Sida hookeriana.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Sida.
OC
     NCBI TaxID=108446;
OX
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RP
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RA
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
RL
     Syst. Bot. 27:333-350(2002).
DR
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K₩
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FT
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     NON TER
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SQ
     SEQUENCE
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  Best Local Similarity
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                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
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             2; Conservative
            4 TR 5
Qу
              11
            3 TR 4
RESULT 37
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     Q9G5Y0
                 PRELIMINARY;
                                    PRT;
ΙD
AC
     Q9G5Y0;
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Pseudotrapelus sinaitus.
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Agaminae;
OC
OC
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     NCBI TaxID=118229;
OX
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RA
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RT
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RL
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RP
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
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phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128507; AAG00758.1; -.
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DR
KW
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FT
     NON TER
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                11 AA;
                          18.2%; Score 2; DB 8;
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                                                    Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                  0; Mismatches
                                                    0;
                                                        Indels
                                                                       Gaps
                                                                               0;
  Matches
             2; Conservative
            9 SK 10
Qv
              \mathbf{H}
Db
            2 SK 3
RESULT 38
Q9G5W5
                                    PRT;
                                            11 AA.
ID
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                 PRELIMINARY;
AC
     09G5W5;
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     Laudakia nupta.
OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
     Laudakia.
OX
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RA
     "Evolution and information content of the mitochondrial genomic
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     structural features illustrated with acrodont lizards.";
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RL
     Syst. Biol. 49:257-277(2000).
RN
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
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RT
     Syst. Biol. 49:233-256(2000).
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DR
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ΚW
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FT
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                          11
SQ
     SEQUENCE
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  Query Match
  Best Local Similarity
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             2; Conservative
                                 0; Mismatches
                                                    0;
  Matches
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4 TR 5
Qу
              | | |
Db
            5 TR 6
RESULT 39
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ID
AC
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
    Aphaniotis fusca.
os
    Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Draconinae;
OC
OC
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     NCBI TaxID=89036;
OX
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RP
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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     SEQUENCE FROM N.A.
RP
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RX
    Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
    Mitochondrion.
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FT
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                         11
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SQ
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                          18.2%; Score 2; DB 8; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+05;
                                 0; Mismatches
                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                                    0;
                                                       Indels
            4 TR 5
Qу
              11
            5 TR 6
RESULT 40
094V77
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                                            11 AA.
ID
     Q94V77
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AC
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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Cytochrome c oxidase subunit I (Fragment).
DE
GN
    COT.
    Heloderma suspectum (Gila monster).
OS
    Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Helodermatidae;
OC
OC
    Heloderma.
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OX
RN
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RP
     SEQUENCE FROM N.A.
RA
    Ast J.C.;
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
RL
     Cladistics 17:0-0(2001).
DR
     EMBL; AF407540; AAL10172.1; -.
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DR
KW
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FT
    NON TER
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                         11
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SO
     SEQUENCE
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                        1396 MW;
                          18.2%; Score 2; DB 8; Length 11;
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  Best Local Similarity
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                                                    0; Indels
                                                                  0; Gaps
             2; Conservative
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Qу
              \mathbf{I}
Db
            4 TR 5
RESULT 41
Q9G628
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                                            11 AA.
ID
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AC
     Q9G628;
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Calotes mystaceus.
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Draconinae;
OC
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     Calotes.
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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RX
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
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RL
     Syst. Biol. 49:233-256(2000).
DR
     EMBL; AF128488; AAG00701.1; -.
     GO; GO:0005739; C:mitochondrion; IEA.
DR
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KW
FT
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SQ
                          18.2%; Score 2; DB 8; Length 11;
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  Best Local Similarity
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                                                                               0;
                                                                  0;
 Matches
             2; Conservative
                                 0; Mismatches
                                                    0;
                                                       Indels
            4 TR 5
QУ
              Ш.
            5 TR 6
Db
RESULT 42
079985
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                                            11 AA.
     079985
                 PRELIMINARY;
TD
AC
     079985;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DΤ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome C oxidase subunit I (Fragment).
DE
GN
     COI.
     Laudakia caucasia.
os
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
     Laudakia.
OX
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RX
     Macey J.R., Schulte J.A. II, Ananjeva N.B., Larson A.,
RA
     Rastegar-Pouyani N., Shammakov S.M., Papenfuss T.J.;
RA
     "Phylogenetic relationships among Agamid lizards of the Laudakia
RT
     caucasia species group: testing hypotheses of biogeographic
RT
     fragmentation and an area cladogram for the Iranian Plateau.";
RT
     Mol. Phylogenet. Evol. 10:118-131(1998).
RL
RN
     SEOUENCE FROM N.A.
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RX
     Macey J.R., Schulte J.A. II, Kami H.G., Ananjeva N.B., Larson A.,
RA
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RA
     "Testing hypotheses of vicariance in the agamid lizard laudakia
RT
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RT
     Mol. Phylogenet. Evol. 14:479-483(2000).
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DR
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DR
     EMBL; AF028685; AAC99608.1; -.
DR
     EMBL; AF028686; AAC99611.1; -.
DR
     EMBL; AF172705; AAF65208.1; -.
DR
     EMBL; AF172704; AAF65205.1; -.
DR
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DR
     PIR; T12264; T12264.
DR
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KW
     Mitochondrion.
     NON TER
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FT
                11 AA; 1361 MW; A8F73710D36411A6 CRC64;
SQ
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                           100.0%; Pred. No. 1.1e+05;
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             2; Conservative
                                                     0; Indels
                                                                    0; Gaps
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Qy
              II
            5 TR 6
RESULT 43
094VI5
ID
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
     COI.
OS
     Varanus exanthematicus.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OC
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RP
     Ast J.C.;
RA
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RT
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                                  0; Mismatches
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                                                                     0;
                                                                         Gaps
  Matches
             2; Conservative
             4 TR 5
QУ
               \mathbf{I}
            4 TR 5
Db
RESULT 44
Q9G359
                  PRELIMINARY;
                                     PRT:
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ID
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AC
     Q9G359;
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DΤ
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
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GN
     COI.
OS
     Japalura flaviceps.
OG
    Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
OC
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OX
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RA
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RT
     structures of mitochondrial transfer RNAs.";
RT
RL
     Mol. Biol. Evol. 14:30-39(1997).
RN
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RA
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     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
RL
     Syst. Biol. 49:257-277(2000).
RN
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RP
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     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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Qу
              \perp
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Db
RESULT 45
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AC
     Q8MEM2;
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Ribosomal protein 16 (Fragment).
DE
GN
     RPL16.
OS
     Lagunaria patersonia.
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
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eurosids II; Malvales; Malvaceae; Malvoideae; Lagunaria.
OC
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RP
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
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     GO; GO:0009507; C:chloroplast; IEA.
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  Best Local Similarity
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                                 0; Mismatches
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Db
            3 TR 4
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DT
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DΕ
GN
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OS
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     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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OX
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RP
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     MEDLINE=22114082; PubMed=12118408;
RX
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
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RP
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RX
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
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RT
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128480; AAG00677.1; -.
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     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
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  Best Local Similarity
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                                                   0; Indels
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                              0; Mismatches
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Qу
              5 AR 6
RESULT 47
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                                           11 AA.
ID
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Created)
DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COT.
OS
     Calotes calotes.
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Draconinae;
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     NCBI TaxID=118093;
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RX
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RA
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     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RX
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
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RT
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128482; AAG00683.1; -.
DR
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DR
KW
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     NON TER
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SQ
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  Query Match
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  Best Local Similarity
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                                                                  0; Gaps
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  Matches
            2; Conservative
            4 TR 5
Qу
              11
Db
            5 TR 6
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NON TER

11

11

FT

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RESULT 48
09G5X4
                  PRELIMINARY;
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                                             11 AA.
ΙD
     Q9G5X4
AC
     Q9G5X4;
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
DT
     Cytochrome c oxidasé subunit I (Fragment).
DE
GN
OS
     Trapelus agilis.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Agaminae;
OC
OC
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     NCBI TaxID=52210;
OX
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RP
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RX
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RA
     Macey J.R., Schulte J.A. II, Larson A.;
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RT
     structural features illustrated with acrodont lizards.";
RT
RL
     Syst. Biol. 49:257-277(2000).
RN
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128509; AAG00764.1; -.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
     Mitochondrion.
FT
     NON TER
                   11
                          11
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     SEQUENCE
SO
                           18.2%; Score 2; DB 8; Length 11;
  Query Match
                           100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
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             2; Conservative
                                 0; Mismatches
                                                     0; Indels
             4 TR 5
Qу
               \mathbf{I}
            5 TR 6
RESULT 49
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ID
AC
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DT
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
     COI.
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OS
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Lanthanotidae;
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RP
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RA
     Ast J.C.;
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
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RL
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DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
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KW
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                         11
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
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             2; Conservative
            4 TR 5
Qу
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Db
RESULT 50
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ID
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AC
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DT
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DT
     Ribosomal protein 16 (Fragment).
DΕ
GN
     RPL16.
     Abelmoschus manihot.
OS
OG
     Chloroplast.
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
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RA
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RT
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RT
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RESULT 51
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
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OS
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OG
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OC
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OC
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OX
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RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
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RP
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RX
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
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RA
     "Rostral Horn Evolution among Agamid Lizards of the Genus Ceratophora
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     Endemic to Sri Lanka.";
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DT
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DT
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DT
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DE
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GN
OS
     Laudakia sacra.
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Agaminae;
OC
OC
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OX
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RX
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
     Mol. Biol. Evol. 14:30-39(1997).
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
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RT
     Syst. Biol. 49:257-277(2000).
RL
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RA
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RA
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RT
RT
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     Syst. Biol. 49:233-256(2000).
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Qy
              11
            5 TR 6
Db
RESULT 53
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DT
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DT
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΤ
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DE
GN
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OS
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OG
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OC
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OC
     Lyriocephalus.
OC
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RT
     Syst. Biol. 49:257-277(2000).
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RA
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RT
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
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RP
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RA
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RT
     Endemic to Sri Lanka.";
RT
     Mol. Phylogenet. Evol. 22:111-117(2002).
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SQ
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             2; Conservative
  Matches
            4 TR 5
Qу
              \mathbf{I}
            5 TR 6
Db
RESULT 54
079636
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                 PRELIMINARY;
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ID
AC
     079636;
     01-NOV-1998 (TrEMBLrel. 08, Created)
DT
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Laudakia himalayana.
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OG
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iquania; Acrodonta; Agamidae; Agaminae;
OC
OC
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     NCBI TaxID=71147;
OX
RN
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RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=98424476; PubMed=9751922;
     Macey J.R., Schulte J.A. II, Ananjeva N.B., Larson A.,
RA
     Rastegar-Pouyani N., Shammakov S.M., Papenfuss T.J.;
RA
     "Phylogenetic relationships among Agamid lizards of the Laudakia
RT
     caucasia species group: testing hypotheses of biogeographic
RT
     fragmentation and an area cladogram for the Iranian Plateau.";
RT
RL
     Mol. Phylogenet. Evol. 10:118-131(1998).
     EMBL; AF028676; AAC99581.1; -.
DR
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DR
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KW
FT
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                                                    0; Indels
                                                                   0; Gaps
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             2; Conservative
            4 TR 5
Qу
              \mathbf{I}
            5 TR 6
Db
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AC
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     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
     COI.
     Acanthosaura lepidogaster.
OS
OG
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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OX
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RN
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RP
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RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
RL
     Syst. Biol. 49:257-277(2000).
RN
     [2]
     SEQUENCE FROM N.A.
RP
     MEDLINE=22114081; PubMed=12118407;
RX
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
```

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RT
     phylogenetics.";
RL
     Syst. Biol. 49:233-256(2000).
     EMBL; AF128499; AAG00734.1; -.
DR
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DR
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ΚW
FT
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Qу
              5 AR 6
Db
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AC
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DT
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     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Trapelus savignyi.
OS
OG
     Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
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OX
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RP
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RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
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RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
RT
     phylogenetics.";
     Syst. Biol. 49:233-256(2000).
RL
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DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
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FT
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  Best Local Similarity
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                                                                   0; Gaps
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             2; Conservative
  Matches
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4 TR 5
Qу
              11
            5 TR 6
Db
RESULT 57
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ID
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                                    PRT;
                                            11 AA.
AC
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
GN
     RPI-16.
     Hibiscus peralbus.
OS
     Chloroplast.
OG
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Hibiscus.
OX
     NCBI TaxID=183256;
RN
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RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
RT
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RL
     Syst. Bot. 27:333-350(2002).
DR
     EMBL; AF384598; AAM50370.1; -.
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KW
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FT
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FT
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                         11
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                                                       Indels
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Qу
            4 TR 5
              Db
            3 TR 4
RESULT 58
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ID
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                 PRELIMINARY;
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                                            11 AA.
AC
     Q8MER8;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
     Ribosomal protein 16 (Fragment).
GN
     RPL16.
OS
     Dombeya tiliacea.
OG
     Chloroplast.
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Dombeyoideae; Dombeya.
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OX

NCBI TaxID=121875;

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RA
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RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384569; AAM50407.1; -.
DR
     GO; GO:0009507; C:chloroplast; IEA.
DR
KW
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                          1
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     NON TER
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                         11
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SQ
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  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.1e+05;
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                                                                  0; Gaps
                                                                               0;
             2; Conservative
                                 0; Mismatches
  Matches
            4 TR 5
Qy
              11
            3 TR 4
Db
RESULT 59
Q9G5V3
                                            11 AA.
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                 PRELIMINARY;
                                   PRT;
ΙD
AC
     Q9G5V3;
     01-MAR-2001 (TrEMBLrel. 16, Created)
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Phrynocephalus mystaceus.
os
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
OC
     Phrynocephalus.
OX
     NCBI TaxID=116118;
RN
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RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=22114082; PubMed=12118408;
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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RX
     Macey J.R., Schulte J.A. II, Larson A., Ananjeva N.B., Wang Y.,
RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
RT
     phylogenetics.";
RL
     Syst. Biol. 49:233-256(2000).
DR
     EMBL; AF128518; AAG00791.1; -.
     GO; GO:0005739; C:mitochondrion; IEA.
DR
KW
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FT
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SQ
     SEQUENCE
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18.2%; Score 2; DB 8; Length 11;
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            2; Conservative
                                                    0; Indels
                                                                  0; Gaps
 Matches
            4 TR 5
Qу
              11
            5 TR 6
Db
RESULT 60
094VE7
                                            11 AA.
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     094VE7
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ID
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AC
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DT
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Varanus komodoensis (Komodo dragon).
OS
OG
    Mitochondrion.
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OC
     NCBI TaxID=61221;
OX
RN
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RP
     SEQUENCE FROM N.A.
     Ast J.C.;
RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
     Cladistics 17:0-0(2001).
RL
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DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
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KW
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                  11
FT
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                11 AA; 1370 MW;
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SQ
                          18.2%; Score 2; DB 8;
                                                    Length 11;
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                          100.0%; Pred. No. 1.1e+05;
  Best Local Similarity
                                0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
             2; Conservative
  Matches
            4 TR 5
Qу
              \perp
            4 TR 5
Db
RESULT 61
Q8WES0
                 PRELIMINARY;
                                    PRT:
                                            11 AA.
ID
     O8WES0
     O8WESO;
AC
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DT
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
OS
     Ceratophora karu.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Draconinae;
OC
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OC
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     NCBI TaxID=118086;
OX
RN
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RP
     MEDLINE=22114082; PubMed=12118408;
RX
     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and phylogenetic information content of mitochondrial
RT
     genomic structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
     MEDLINE=21655505; PubMed=11796034;
RX
     Schulte J.A. II, Macey J.R., Pethiyagoda R., Larson A.;
RA
RT
     "Rostral Horn Evolution among Agamid Lizards of the Genus Ceratophora
     Endemic to Sri Lanka.";
RT
     Mol. Phylogenet. Evol. 22:111-117(2002).
RL
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KW
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FT
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                                 0; Mismatches
                                                       Indels
                                                                  0; Gaps
  Matches
            2; Conservative
            4 TR 5
Qу
              \perp
            5 TR 6
RESULT 62
Q94VB8
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                                            11 AA.
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ID
AC
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DΤ
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
     Varanus salvadorii (Crocodile monitor).
OS
OG
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     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
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OC
     NCBI TaxID=62049;
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RN
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RP
     SEQUENCE FROM N.A.
     Ast J.C.;
RA
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RT
     Cladistics 17:0-0(2001).
RL
DR
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KW
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FT
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Db
RESULT 63
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DT
     01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DТ
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DΕ
GN
     COI.
OS
     Calotes liolepis.
OG
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OC
OC
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OX
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RP
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     Macey J.R., Schulte J.A. II, Larson A.;
RA
     "Evolution and information content of the mitochondrial genomic
RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
     phylogenetics.";
RT
     Syst. Biol. 49:233-256(2000).
RL
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Qу
              \mathbf{I}
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ID
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01-MAR-2001 (TrEMBLrel. 16, Created)
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
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DE
GN
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OS
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OG
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OC
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OC
OC
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     NCBI TaxID=118238;
OX
RN
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RP
RX
     MEDLINE=97153820; PubMed=9000751;
     Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RA
     "Replication slippage may cause parallel evolution in the secondary
RT
     structures of mitochondrial transfer RNAs.";
RT
RL
     Mol. Biol. Evol. 14:30-39(1997).
RN
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RP
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RA
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RT
     structural features illustrated with acrodont lizards.";
RT
     Syst. Biol. 49:257-277(2000).
RL
RN
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RP
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RA
     Pethiyagoda R., Rastegar-Pouyani N., Papenfuss T.J.;
RA
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RT
RT
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     Syst. Biol. 49:233-256(2000).
RL
     EMBL; AF128511; AAG00770.1; -.
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DR
     GO; GO:0005739; C:mitochondrion; IEA.
KW
     Mitochondrion.
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FT
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Qv `
              11
            5 TR 6
Db
RESULT 65
079642
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AC
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DT
     01-NOV-1998 (TrEMBLrel. 08, Created)
     01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DE
GN
     COI.
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```
os
     Laudakia microlepis.
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Iguania; Acrodonta; Agamidae; Agaminae;
OC
     Laudakia.
OC
     NCBI TaxID=71149;
OX
RN
     [1]
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RP
     MEDLINE=98424476; PubMed=9751922;
RX
     Macey J.R., Schulte J.A. II, Ananjeva N.B., Larson A.,
RA
     Rastegar-Pouyani N., Shammakov S.M., Papenfuss T.J.;
RA
     "Phylogenetic relationships among Agamid lizards of the Laudakia
RT
     caucasia species group: testing hypotheses of biogeographic
RT
     fragmentation and an area cladogram for the Iranian Plateau.";
RT
     Mol. Phylogenet. Evol. 10:118-131(1998).
RL
     EMBL; AF028678; AAC99587.1; -.
DR
     PIR; T12248; T12248.
DR
     GO; GO:0005739; C:mitochondrion; IEA.
DR
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KW
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                11 AA; 1327 MW; A8F7371E336411A6 CRC64;
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  Best Local Similarity
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                                 0; Mismatches
                                                                  0; Gaps
  Matches
             2; Conservative
            4 TR 5
Qу
Db
            5 TR 6
RESULT 66
Q8MES1
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                                    PRT;
                 PRELIMINARY;
ID
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AC
     O8MES1;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Ribosomal protein 16 (Fragment).
DE
     RPL16.
GN
     Alyoqyne pinoniana.
OS
     Chloroplast.
OG
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Alyogyne.
OC
OX
     NCBI TaxID=183226;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
RA
     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
RT
     chloroplast DNA sequences of ndhF and the rpl16 intron.";
RT
     Syst. Bot. 27:333-350(2002).
RL
     EMBL; AF384566; AAM50404.1; -.
DR
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DR
KW
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                   1
                           1
     NON TER
FT
                          11
FT
     NON TER
                   11
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18.2%; Score 2; DB 8;
                                                    Length 11;
 Query Match
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  Best Local Similarity
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                              0; Mismatches
                                                    0; Indels
             2; Conservative
            4 TR 5
Qу
              \Box
            3 TR 4
RESULT 67
094VH7
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                 PRELIMINARY;
                                   PRT;
                                            11 AA.
ID
AC
     Q94VH7;
     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Cytochrome c oxidase subunit I (Fragment).
DΕ
GN
     COI.
OS
     Varanus gilleni (Pygmy mulga monitor).
     Mitochondrion.
OG
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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     Ast J.C.;
     "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
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     Cladistics 17:0-0(2001).
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DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
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GN
OS
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OG
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SQ

SEQUENCE

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     Melville J., Schulte J.A. II, Larson A.;
     "A molecular phylogenetic study of ecological diversification in the
RT
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     J. Exp. Zool. 291:339-353(2001).
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DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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GN
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OG
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OC
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
RT
RT
     phylogenetics.";
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Db
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GN
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OG
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OC
OC
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     Pfeil B.E., Brubaker C.L., Craven L.A., Crisp M.D.;
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     "Phylogeny of Hibiscus and the tribe Hibisceae (Malvaceae) using
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     Syst. Bot. 27:333-350(2002).
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DT
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ΚW

Mitochondrion.

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GN
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OS
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     structural features illustrated with acrodont lizards.";
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     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
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FT
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"Evolution and phylogenetic information content of mitochondrial

RT

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DE
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     COI.
OS
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OG
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RP
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DE
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OS
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    structural features illustrated with acrodont lizards.";
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    Syst. Biol. 49:257-277(2000).
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RA
     "Evaluating Trans-Tethys migration: An example using Acrodont lizard
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RT
     phylogenetics.";
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Search completed: April 8, 2004, 15:46:07 Job time: 28.7692 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

April 8, 2004, 15:30:07; Search time 5.15385 Seconds Run on:

(without alignments)

111.135 Million cell updates/sec

70

US-09-787-443A-14 Title:

Perfect score: 11

Sequence: 1 ARKTRERKSKD 11

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

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Post-processing: Listing first 100 summaries

SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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25	1	9.1	11	1	CEP1_ACHFU		P22790	achatina fu
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34	1	9.1	11	1	FAR9 CALVO		P41864	calliphora
35	1	9.1	11	1	HS70 PINPS		P81672	pinus pinas
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38					_			_
39	1	9.1	11	1	LSKP_PERAM			periplaneta
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44	1	9.1	11	1	OAIF_SARBU		P83518	sarcophaga
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68	1	9.1	11	1	TKN_PHYFU			physalaemus
69	1	9.1	11	1	UF05_MOUSE			mus musculu
70	1	9.1	11	1	ULAG_HUMAN		P31933	homo sapien
					_			

```
RESULT 1
TKN ELEMO
                                   PRT;
     TKN ELEMO
                    STANDARD;
                                            11 AA.
ID
     P01293;
AC
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Eledoisin.
     Eledone moschata (Musky octopus) (Ozaena moschata), and
OS
     Eledone cirrhosa (Curled octopus) (Ozaena cirrosa).
OS
     Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC
     Octopodiformes; Octopoda; Incirrata; Octopodidae; Eledone.
OC
OX
     NCBI TaxID=6641, 102876;
RN
     [1]
RP
     SEQUENCE.
RA
     Anastasi A., Erspamer V.;
     "The isolation and amino acid sequence of eledoisin, the active
RT
     endecapeptide of the posterior salivary glands of Eledone.";
RT
     Arch. Biochem. Biophys. 101:56-65(1963).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
     PIR; A01561; EOOC.
DR
     PIR; B01561; EOOCC.
DR
     PDB; 1MXQ; 18-FEB-03.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Pyrrolidone carboxylic acid;
KW
KW
     3D-structure.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                  11
                         11
                                  AMIDATION.
FT
     MOD RES
                11 AA; 1206 MW; 570D7C2559CDDAA3 CRC64;
     SEQUENCE
SQ
                          27.3%; Score 3; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.1e+03;
  Best Local Similarity
                               0; Mismatches
                                                   0;
                                                       Indels
                                                                  0; Gaps
                                                                               0;
  Matches
             3; Conservative
            9 SKD 11
Qv
              +11
            3 SKD 5
Db
RESULT 2
UXB2 YEAST
                                    PRT:
                                            11 AA.
     UXB2 YEAST
ΙD
                    STANDARD;
     P99013;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page (Spot 2D-000K2F) (Fragment).
DΕ
     Saccharomyces cerevisiae (Baker's yeast).
OS
     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC
```

```
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OC
    NCBI TaxID=4932;
OX
     [1]
RN
    SEQUENCE.
RP
RC
    STRAIN=X2180-1A;
    Sanchez J.-C., Golaz O., Schaller D., Morch F., Frutiger S.,
RA
    Hughes G.J., Appel R.D., Deshusses J., Hochstrasser D.F.;
RA
    Submitted (AUG-1995) to Swiss-Prot.
RL
    -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
CC
         protein is: 6.20, its MW is: 9.2 kDa.
    SWISS-2DPAGE; P99013; YEAST.
DR
    NON TER
                  11
                         11
FT
                11 AA; 1328 MW; EC38021C0DCB42DA CRC64;
SO
     SEQUENCE
  Query Match
                          27.3%; Score 3; DB 1; Length 11;
                          100.0%; Pred. No. 1.1e+03;
  Best Local Similarity
            3; Conservative 0; Mismatches
                                                                              0;
 Matches
                                                 0; Indels
                                                                  0; Gaps
            1 ARK 3
Qу
              IIII
Db
           7 ARK 9
RESULT 3
BRK MEGFL
    BRK MEGFL
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P12797;
     01-OCT-1989 (Rel. 12, Created)
DT
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
    Megascoliakinin ([Thr6]bradykinin-Lys-Ala) [Contains: Bradykinin-like
DE
DE
    peptide ([Thr6]bradykinin)].
    Megascolia flavifrons (Garden dagger wasp) (Solitary wasp).
OS
    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
    Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
    Scoliidae; Megascolia.
    NCBI TaxID=7437;
OX
RN
     [1]
RP
     SEQUENCE.
RC
    TISSUE=Venom;
    MEDLINE=87293024; PubMed=3617088;
RX
     Yasuhara T., Mantel P., Nakajima T., Piek T.;
RA
     "Two kinins isolated from an extract of the venom reservoirs of the
RT
     solitary wasp Megascolia flavifrons.";
RT
     Toxicon 25:527-535(1987).
RL
RN
     [2]
RP
     SEQUENCE.
RC
    TISSUE=Venom:
    Nakajima T., Piek T., Yashuara T., Mantel P.;
RA
     "Two kinins isolated from the venom of Megascolia flavifrons.";
RT
RL
    Toxicon 26:34-34(1988).
     -!- FUNCTION: Both proteins have bradykinin-like, although lower
CC
CC
         activities (e.g. smooth muscle contraction).
     -!- SUBCELLULAR LOCATION: Secreted; wasp venom reservoirs.
CC
CC
     -!- SIMILARITY: Belongs to the bradykinin family.
     PIR; B26744; B26744.
DR
     GO; GO:0005615; C:extracellular space; IDA.
DR
```

```
GO; GO:0045776; P:negative regulation of blood pressure; ISS.
     GO; GO:0045987; P:positive regulation of smooth muscle contra. . .; TAS.
DR
KW
     Bradykinin; Vasodilator.
                                  MEGASCOLIAKININ.
     PEPTIDE
                   1
                         11
FT
                                  BRADYKININ-LIKE PEPTIDE.
     PEPTIDE
                   1
                          9
FT
     SEQUENCE
                11 AA; 1273 MW;
                                  33867393D771A9C8 CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
 Ouery Match
 Best Local Similarity
                          100.0%; Pred. No. 1.2e+04;
                                                                               0;
            2: Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
 Matches
            2 RK 3
Qу
              \perp
            9 RK 10
Dh
RESULT 4
ES1 RAT
     ES1 RAT
                    STANDARD;
                                   PRT;
                                            11 AA.
ΙD
AC
     P56571;
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     ES1 protein, mitochondrial (Fragment).
DE
OS
     Rattus norvegicus (Rat).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OC
OX
     NCBI_TaxID=10116;
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Wistar; TISSUE=Heart;
RC
     Li X.-P., Pleissner K.-P., Scheler C., Regitz-Zagrosek V., Salikov J.,
RA
     Jungblut P.R.;
RA
     Submitted (SEP-1998) to Swiss-Prot.
RL
     -!- SUBCELLULAR LOCATION: Mitochondrial (Potential).
CC
     -!- MISCELLANEOUS: By 2D-PAGE, the determined pI of this protein (spot
CC
         P2) is: 8.9, its MW is: 25 kDa.
CC
     -!- SIMILARITY: BELONGS TO THE ES1 FAMILY.
CC
KW
     Mitochondrion.
     NON TER
                         11
FT
                  11
                11 AA; 1142 MW; D862272D32C72DC2 CRC64;
     SEOUENCE
SO
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.2e+04;
                               0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                      Gaps
             2; Conservative
  Matches
            1 AR 2
Qу
              \mathbf{H}
Db
            2 AR 3
RESULT 5
MORN HUMAN
     MORN HUMAN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
     P01163;
AC
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
```

```
28-FEB-2003 (Rel. 41, Last annotation update)
DT
    Morphogenetic neuropeptide (Head activator) (HA).
DE
    Homo sapiens (Human),
OS
     Rattus norvegicus (Rat),
OS
OS
     Bos taurus (Bovine),
os
    Anthopleura elegantissima (Sea anemone), and
    Hydra attenuata (Hydra) (Hydra vulgaris).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
RN
     [1]
     SEQUENCE.
RP
RC
     SPECIES=Human, Rat, and Bovine;
RX
     MEDLINE=82035850; PubMed=7290191;
     Bodenmuller H., Schaller H.C.;
RA
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
RT
     from coelenterates to humans.";
RL
     Nature 293:579-580(1981).
RN
     [2]
     SEQUENCE.
RP
RC
     SPECIES=A.elegantissima, and H.attenuata;
RA
     Schaller H.C., Bodenmuller H.;
     "Isolation and amino acid sequence of a morphogenetic peptide from
RT
     hydra.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
     [3]
RP
     SYNTHESIS.
     MEDLINE=82050803; PubMed=7297679;
RX
     Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
RA
     "Synthesis of a new neuropeptide, the head activator from hydra.";
RT
     FEBS Lett. 131:317-321(1981).
RL
RN
     [4]
RP
     FUNCTION.
RX
     MEDLINE=90059923; PubMed=2583101;
     Schaller H.C., Druffel-Augustin S., Dubel S.;
RA
     "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
     in the G2/mitosis transition.";
RT
     EMBO J. 8:3311-3318(1989).
RL
CC
     -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
         in the G2/mitosis transition.
CC
     -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
         and was called head activator by the authors, because it induced
CC
         head-specific growth and differentiation in this animal. It has
CC
         been found in mammalian intestine and hypothalamus.
CC
     PIR; A01427; YHRT.
DR
     PIR; A93900; YHXAE.
DR
     PIR; B01427; YHHU.
DR
     PIR; B93900; YHJFHY.
DR
DR
     PIR; C01427; YHBO.
DR
     GK; P01163; -.
     Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
KW
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                          1
     SEQUENCE
                11 AA; 1142 MW; 37927417C325B878 CRC64;
SQ
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
                                0; Mismatches
                                                   0;
                                                                  0; Gaps
                                                                              0;
                Conservative
                                                        Indels
  Matches
             2;
```

```
9 SK 10
Qу
              11
Db
            6 SK 7
RESULT 6
Q2OA COMTE
     Q2OA COMTE
                                    PRT;
                                            11 AA.
                    STANDARD;
AC
     P80464;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Quinoline 2-oxidoreductase, alpha chain (EC 1.3.99.17) (Fragment).
DE
     Comamonas testosteroni (Pseudomonas testosteroni).
OS
     Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC
     Comamonadaceae; Comamonas.
OC
     NCBI TaxID=285;
OX
RN
     [1]
RP
     SEQUENCE.
     STRAIN=63;
RC
     MEDLINE=96035889; PubMed=7556204;
RX
     Schach S., Tshisuaka B., Fetzner S., Lingens F.;
RA
     "Quinoline 2-oxidoreductase and 2-oxo-1,2-dihydroquinoline 5,6-
RT
     dioxygenase from Comamonas testosteroni 63. The first two enzymes in
RT
     quinoline and 3-methylquinoline degradation.";
RT
RL
     Eur. J. Biochem. 232:536-544(1995).
CC
     -!- FUNCTION: Converts (3-methyl-)-quinoline to (3-methyl-)2-oxo-
CC
         1,2-dihydroquinoline.
     -!- CATALYTIC ACTIVITY: Quinoline + acceptor + H(2)O = isoquinolin-
CC
CC
         1(2H)-one + reduced acceptor.
CC
     -!- COFACTOR: FAD, molybdenum and iron-sulfur.
     -!- PATHWAY: Degradation of quinoline and (3-methyl-)quinoline; first
CC
CC
CC
     -!- SUBUNIT: Heterohexamer of two alpha chains, two beta chains, and
CC
         two gamma chains (Probable).
     PIR; S66606; S66606.
DR
KW
     Oxidoreductase; Flavoprotein; FAD; Molybdenum.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA;
                        1213 MW; 869094322B1DC2CA CRC64;
                                  Score 2; DB 1; Length 11;
                          18.2%;
  Query Match
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
                                                                               0;
                Conservative
                                 0;
                                     Mismatches
                                                    0;
                                                       Indels
                                                                   0;
                                                                       Gaps
            8 KS 9
Qу
            2 KS 3
RESULT 7
RR2 CONAM
ID
     RR2 CONAM
                    STANDARD;
                                    PRT:
                                            11 AA.
AC
     P42341;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
```

```
Chloroplast 30S ribosomal protein S2 (Fragment).
DE
GN
    Conopholis americana (Squawroot).
OS
    Chloroplast.
OG
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
    Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
    lamiids; Lamiales; Orobanchaceae; Orobancheae; Conopholis.
OC
OX
    NCBI TaxID=4179;
RN
    [1]
RP
    SEQUENCE FROM N.A.
    MEDLINE=92145776; PubMed=1723664;
RX
    Taylor G., Wolfe K.H., Morden C.W., Depamphilis C.W., Palmer J.D.;
RA
    "Lack of a functional plastid tRNA(Cys) gene is associated with loss
RT
    of photosynthesis in a lineage of parasitic plants.";
RT
    Curr. Genet. 20:515-518(1991).
RL
    -!- SIMILARITY: Belongs to the S2P family of ribosomal proteins.
CC
    _____
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
    the European Bioinformatics Institute. There are no restrictions on its
CC
    use by non-profit institutions as long as its content is in no way
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    entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC
CC
    or send an email to license@isb-sib.ch).
CC
    EMBL; X64567; CAA45868.1; -.
DR
    PIR; S32575; S32575.
DR
    HAMAP; MF 00291; -; 1.
DR
    InterPro; IPR001865; Ribosomal S2.
DR
    PROSITE; PS00962; RIBOSOMAL S2 1; PARTIAL.
DR
    PROSITE; PS00963; RIBOSOMAL_S2_2; PARTIAL.
DR
    Ribosomal protein; Chloroplast.
KW
    NON TER
                 11
                        11
FT
              11 AA; 1497 MW; 76CD719954536B44 CRC64;
    SEQUENCE
SQ
                         18.2%; Score 2; DB 1; Length 11;
 Query Match
                         100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
           2; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
 Matches
           4 TR 5
Qу
             2 TR 3
Db
RESULT 8
RS30 ONCMY
     RS30 ONCMY
                   STANDARD;
                                  PRT;
ID
                                         11 AA.
     P83328;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     40S ribosomal protein S30 (Fragment).
GN
    FAU.
    Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
```

```
NCBI TaxID=8022;
OX
RN
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
    TISSUE=Skin mucus;
RC
    MEDLINE=22142142; PubMed=12147245;
RX
     Fernandes J.M.O., Smith V.J.;
RA
     "A novel antimicrobial function for a ribosomal peptide from rainbow
RT
    trout skin.";
RT
     Biochem. Biophys. Res. Commun. 296:167-171(2002).
RL
     -!- FUNCTION: Has antibacterial activity against Gram-positive
CC
CC
     -!- MASS SPECTROMETRY: MW=6676.6; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the S30E family of ribosomal proteins.
CC
KW
     Ribosomal protein; Antibiotic.
FT
     NON TER
                 11
                         11
                11 AA; 1123 MW; 2312AB630DD735B8 CRC64;
     SEQUENCE
SO
                          18.2%; Score 2; DB 1;
                                                   Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
            2; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
Qу
            1 AR 2
             1.1
            7 AR 8
Db
RESULT 9
TKN2 UPERU
                                   PRT:
                                           11 AA.
     TKN2 UPERU
                    STANDARD;
ID
AC
     P08616;
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Rugosauperolein II ([Lys5,Thr6]physalaemin).
DE
     Uperoleia rugosa (Wrinkled toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
RP
     SEOUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=80223080; PubMed=7389029;
RX
     Nakajima T., Yasuhara T., Erspamer V., Erspamer G.F., Negri L.;
RA
     "Physalaemin- and bombesin-like peptides in the skin of the
RT
     Australian leptodactylid frog Uperoleia rugosa.";
RT
     Chem. Pharm. Bull. 28:689-695(1980).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
```

```
Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
    MOD RES
                                  AMIDATION.
                  11
                         11
FT
                        1270 MW;
                                  3293693E59D1A327 CRC64;
SQ
     SEQUENCE
                11 AA;
                          18.2%; Score 2; DB 1; Length 11;
  Query Match
                                   Pred. No. 1.2e+04;
  Best Local Similarity
                          100.0%;
                                 0; Mismatches
                                                                               0;
             2; Conservative
                                                    0;
                                                        Indels
                                                                   0;
                                                                      Gaps
            3 KT 4
Qy
              Ш
            5 KT 6
RESULT 10
TKNA RANRI
     TKNA RANRI
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P29207;
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranakinin (Substance-P-related peptide).
DE
     Rana ridibunda (Laughing frog) (Marsh frog).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
OX
     NCBI TaxID=8406;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
     MEDLINE=92044543; PubMed=1658233;
RX
     O'Harte F., Burcher E., Lovas S., Smith D.D., Vaudry H., Conlon J.M.;
RA
     "Ranakinin: a novel NK1 tachykinin receptor agonist isolated with
RT
     neurokinin B from the brain of the frog Rana ridibunda.";
RT
     J. Neurochem. 57:2086-2091(1991).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
KW
     Tachykinin; Neuropeptide; Amidation.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                                  3A2460CC59D40B07 CRC64;
SQ
     SEQUENCE
                11 AA; 1352 MW;
  Query Match
                          18.2%; Score 2; DB 1; Length 11;
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
                                                       Indels
                                                                      Gaps
                                 0; Mismatches
                                                    0;
                                                                   0;
                                                                               0;
  Matches
             2; Conservative
            6 ER 7
Qу
              11
            5 ER 6
Db
```

```
RESULT 11
TKND RANCA
                                            11 AA.
     TKND RANCA
                    STANDARD;
                                    PRT;
AC
     P22691;
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin D (RTK D).
DE
     Rana catesbeiana (Bull frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8400;
OX
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RP
     TISSUE=Intestine;
RC
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
RT
     brain and intestine.";
RL
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RN
     [2]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
RT
     intestine.";
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; D61033; D61033.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     PROSITE; PS00267; TACHYKININ; FALSE NEG.
DR
     Tachykinin; Neuropeptide; Amidation.
KW
                                   AMIDATION.
     MOD RES
                  11
                         11
FT
                11 AA; 1350 MW; 3A34256C59D40B07 CRC64;
     SEQUENCE
SO
                           18.2%; Score 2; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 1.2e+04;
  Best Local Similarity
                                                                   0; Gaps
                                                                               0;
                                  0; Mismatches
                                                    0;
                                                       Indels
             2; Conservative
  Matches
            6 ER 7
Qу
              \perp1
            5 ER 6
RESULT 12
ANGT CRIGE
                                    PRT;
                                            11 AA.
     ANGT CRIGE
                     STANDARD;
ID
AC
     P09037;
     01-NOV-1988 (Rel. 09, Created)
DT
```

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DT
     01-NOV-1988 (Rel. 09, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Crinia-angiotensin II.
     Crinia georgiana (Quacking frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
    Myobatrachinae; Crinia.
OC
    NCBI TaxID=8374;
OX
RN
     [1]
     SEOUENCE.
RP
     TISSUE=Skin secretion;
RC
    MEDLINE=80024575; PubMed=488254;
RX
     Erspamer V., Melchiorri P., Nakajima T., Yasuhara T., Endean R.;
RA
     "Amino acid composition and sequence of crinia-angiotensin, an
RT
     angiotensin II-like endecapeptide from the skin of the Australian
RT
     frog Crinia georgiana.";
RT
     Experientia 35:1132-1133(1979).
RL
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
DR
     PIR; S07207; S07207.
KW
     Vasoconstrictor.
SQ
     SEQUENCE
               11 AA; 1271 MW; 8A0921F7DB50440A CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                      Gaps
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                  0;
  Matches
             1; Conservative
            1 A 1
Qу
            1 A 1
Db
RESULT 13
ASL1 BACSE
     ASL1 BACSE
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P83146;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 1 (EC 4.2.2.-) (Fragment).
DE
     Bacteroides stercoris.
OS
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OC
     NCBI TaxID=46506;
ΟX
RN
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
RC
     STRAIN=HJ-15;
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
     "Purification and characterization of acharan sulfate lyases, two
RT
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
     Eur. J. Biochem. 268:2635-2641(2001).
RL
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
CC
         heparin and heparan sulfate.
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and cobalt.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
         mercaptoethanol.
CC
```

```
-!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
         7.2 and optimum temperature 45 degrees Celsius.
CC
     Lyase; Heparin-binding.
KW
FT
     NON TER
                   1
                          1
     NON TER
                  11
                         11
FT
     SEQUENCE
                11 AA; 1395 MW;
                                 01B2DAA241E865AB CRC64;
SQ
  Ouery Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
 Matches
            1; Conservative
            9 S 9
Qу
            5 S 5
Db
RESULT 14
ASL2 BACSE
ID
     ASL2 BACSE
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P83147;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Acharan sulfate lyase 2 (EC 4.2.2.-) (Fragment).
     Bacteroides stercoris.
OS
     Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
OC
     Bacteroidaceae; Bacteroides.
OC
OX
     NCBI TaxID=46506;
RN
     [1]
     SEQUENCE, FUNCTION, ENZYME REGULATION, AND SUBUNIT.
RP
     STRAIN=HJ-15;
RC
     MEDLINE=21223019; PubMed=11322884;
RX
     Kim B.-T., Hong S.-W., Kim W.-S., Kim Y.S., Kim D.-H.;
RA
     "Purification and characterization of acharan sulfate lyases, two
RT
     novel heparinases, from Bacteroides stercoris HJ-15.";
RT
     Eur. J. Biochem. 268:2635-2641(2001).
RL
     -!- FUNCTION: Degrades acharan sulfate and, to a lesser extent,
CC
         heparin and heparan sulfate.
CC
     -!- ENZYME REGULATION: Inhibited by cupric ion, nitrogen and lead.
CC
         Activated by reducing agents, such as DL-dithiothreitol and 2-
CC
CC
         mercaptoethanol.
     -!- SUBUNIT: Monomer.
CC
     -!- PTM: The N-terminus is blocked.
CC
     -!- MISCELLANEOUS: Has an isoelectric point of 8.6. Its optimum pH is
CC
         7.2 and optimum temperature 45 degrees Celsius.
CC
     Lyase; Heparin-binding.
KW
FT
     NON TER
                   1
                          1
                  11
FT
     NON TER
                         11
              11 AA; 1195 MW; D79D897C7AA451AD CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            4 T 4
Qу
```

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Db 1 T 1
```

```
RESULT 15
BPP3 BOTIN
                                            11 AA.
ID
     BPP3 BOTIN
                    STANDARD;
                                    PRT;
     P30423;
AC
     01-APR-1993 (Rel. 25, Created)
DT
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RX
     MEDLINE=90351557; PubMed=2386615;
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
     PIR; C37196; C37196.
DR
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
\mathbf{FT}
     MOD RES
                   1
                          1
                                  20B25813C7741777 CRC64;
                11 AA; 1199 MW;
SQ
     SEQUENCE
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                0; Mismatches
                                                    0; Indels
                                                                   0:
                                                                       Gaps
  Matches
             1; Conservative
            2 R 2
Qу
              - 1
            6 R 6
Db
RESULT 16
BPP4 BOTIN
     BPP4 BOTIN
                    STANDARD;
                                    PRT;
                                            11 AA.
ID
AC
     P30424;
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DΕ
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
```

```
OX
     NCBI_TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
     MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RT
     J. Protein Chem. 9:221-227(1990).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
CC
         angiotensin-converting enzyme and enhances the action of
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
DR
     PIR; D37196; D37196.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                          1
                11 AA; 1143 MW; 20BBBF13C7741777 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            1; Conservative
            2 R 2
Qy
              - 1
Db
            6 R 6
RESULT 17
BPPB AGKHA
                                   PRT;
     BPPB AGKHA
                    STANDARD;
                                           11 AA.
ID
AC
     P01021;
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Agkistrodon halys blomhoffi (Mamushi) (Gloydius blomhoffii).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Viperidae; Crotalinae; Gloydius.
     NCBI TaxID=242054;
OX
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
RA
     Kato H., Suzuki T.;
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
     the venom of Agkistrodon halys blomhoffii.";
RT
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01254; XASNBA.
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
                                 PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                11 AA; 1199 MW; 295CBF0627741777 CRC64;
SQ
     SEQUENCE
```

```
100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             1; Conservative
            2 R 2
Qy
            6 R 6
Db
RESULT 18
BPP AGKHP
                    STANDARD;
                                   PRT;
                                            11 AA.
     BPP AGKHP
ID
     P04562;
AC
     13-AUG-1987 (Rel. 05, Created)
DΤ
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
OS
     pallas).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
OX
     NCBI TaxID=8714;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom;
     MEDLINE=86177022; PubMed=3008123;
RX
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RA
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RT
     Peptides 6 Suppl. 3:339-342(1985).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
     PIR; JC0002; XAVIBH.
DR
     Hypotensive agent; Pyrrolidone carboxylic acid.
KW
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
                   1
                          1
                11 AA; 1112 MW; 30BABF1277686777 CRC64;
     SEOUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
            1; Conservative
                                                                      Gaps
                                                                               0;
                                 0; Mismatches
                                                    0: Indels
                                                                  0;
  Matches
Qy
            2 R 2
            3 R 3
Db
RESULT 19
CA21 LITCI
                                    PRT;
                                            11 AA.
     CA21 LITCI
                    STANDARD;
ID.
AC
     P82087;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
```

9.1%; Score 1; DB 1; Length 11;

Query Match

```
Caerulein 2.1/2.1Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.1Y4 differs from isoform 2.1 in not being
CC
         sulfated.
CC
     -!- MASS SPECTROMETRY: MW=1372; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
                          1
FT
     MOD RES
                   4
                          4
                                  SULFATION.
FT
                                  AMIDATION.
     MOD RES
                  11
                         11
FT
                11 AA; 1312 MW; 10DAB7C4EDD861BB CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                               0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                                                               0;
             1; Conservative
  Matches
           11 D 11
Qy
            3 D 3
Db
RESULT 20
CA22 LITCI
                                            11 AA.
                                    PRT;
     CA22 LITCI
                     STANDARD;
ID
     P82088;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 2.2/2.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
```

```
Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 2.2Y4 differs from isoform 2.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
                11 AA; 1328 MW; 10DAB894EDD861BB CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                              0;
                               0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
  Matches
             1; Conservative
           11 D 11
Qy
Db
            3 D 3
RESULT 21
CA31 LITCI
                                   PRT;
                                           11 AA.
     CA31 LITCI
                    STANDARD;
ID
     P82089;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DΤ
     Caerulein 3.1/3.1Y4.
DΕ
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.1Y4 differs from isoform 3.1 in not being
CC
CC
         sulfated.
```

```
-!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
FT
                   4
     MOD RES
                          4
                                  SULFATION.
FT
                         11
                                  AMIDATION.
FT
     MOD RES
                  11
                                 10DAB7D67861A86B CRC64;
SQ
     SEQUENCE
                11 AA; 1347 MW;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                                 0; Mismatches
                                                    0; Indels
             1; Conservative
            4 T 4
Qу
            6 T 6
RESULT 22
CA32 LITCI
     CA32 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
ID
     P82090;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
     Caerulein 3.2/3.2Y4.
DΕ
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
     NCBI TaxID=94770;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 3.2Y4 differs from isoform 3.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1423; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
KW
     Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
     MOD RES
                   1
     MOD RES
                   4
                          4
                                  SULFATION.
FT
                                  AMIDATION.
     MOD RES
                  11
                         11
FT
     SEQUENCE 11 AA; 1363 MW; 10DAB8867861A86B CRC64;
SQ
```

-!- MASS SPECTROMETRY: MW=1407; METHOD=Electrospray.

CC

```
9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9e+04;
            1; Conservative
                                                                              0;
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches
            4 T 4
Qу
              1
            6 · T 6
Db
RESULT 23
CA41 LITCI
                                   PRT;
                                           11 AA.
     CA41 LITCI
                    STANDARD;
ID
     P82091;
AC
     16-OCT-2001 (Rel. 40, Created)
DΤ
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Caerulein 4.1/4.1Y4.
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=94770;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.1Y4 differs from isoform 4.1 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1388; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
     MOD RES
                   1
     MOD RES
                   4
                          4
                                  SULFATION.
FT
     MOD RES
                                  AMIDATION.
                         11
FΤ
                  11
                11 AA; 1328 MW;
                                  10DAB7C4F5B861BB CRC64;
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 T 4
Qу
              П
            5 T 5
Db
```

```
CA42 LITCI
     CA42 LITCI
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82092;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Caerulein 4.2/4.2Y4.
DE
     Litoria citropa (Australian blue mountains tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
     Pelodryadinae; Litoria.
OC
OX
     NCBI TaxID=94770;
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
     TISSUE=Skin secretion;
RC
     MEDLINE=20057701; PubMed=10589099;
RX
     Wabnitz P.A., Bowie J.H., Tyler M.J.;
RA
     "Caerulein-like peptides from the skin glands of the Australian blue
RT
     montains tree frog Litoria citropa. Part 1. Sequence determination
RT
     using electrospray mass spectrometry.";
RT
     Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RL
     -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- PTM: Isoform 4.2Y4 differs from isoform 4.2 in not being
CC
CC
         sulfated.
     -!- MASS SPECTROMETRY: MW=1404; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; FALSE NEG.
DR
     Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                   4
                          4
                                   SULFATION.
FT
                                  AMIDATION.
     MOD RES
                  11
                         11
FT
                11 AA; 1344 MW; 10DAB894F5B861BB CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0;
                                                                      Gaps
                                                                               0;
             1; Conservative
                               0; Mismatches
  Matches
            4 T 4
Qу
            5 T 5
Db
RESULT 25
CEP1 ACHFU
                                            11 AA.
                                    PRT:
     CEP1 ACHFU
                    STANDARD;
AC
     P22790;
DT
     01-AUG-1991 (Rel. 19, Created)
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     01-DEC-1992 (Rel. 24, Last annotation update)
DT
     Cardio-excitatory peptide-1 (ACEP-1).
DE
     Achatina fulica (Giant African snail).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC
```

RESULT 24

```
OC
     Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OX
     NCBI TaxID=6530;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=Ferussac; TISSUE=Heart atrium;
RC
     MEDLINE=90211261; PubMed=2322251;
RX
     Fujimoto K., Ohta N., Yoshida M., Kubota I., Muneoka Y., Kobayashi M.;
RA
     "A novel cardio-excitatory peptide isolated from the atria of the
RT
     African giant snail, Achatina fulica.";
RT
     Biochem. Biophys. Res. Commun. 167:777-783(1990).
RL
     -!- FUNCTION: Potentiates the beat of the ventricle, and has also
CC
         excitatory actions on the penis retractor muscle, the buccal
CC
         muscle and the identified neurons controlling the buccal muscle
CC
         movement of achatina.
CC
     -!- SIMILARITY: TO POSSIBLE PEPTIDE L5 FROM APLYSIA.
CC
     PIR; A34662; A34662.
DR
     Hormone; Amidation.
ΚW
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1305 MW; 82D6D5B9C7741365 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
                                                                  0; Gaps
                               0; Mismatches
                                                  0; Indels
  Matches
            1; Conservative
Qу
            2 R 2
              6 R 6
Dh
RESULT 26
CORZ PERAM
                                   PRT;
     CORZ PERAM
                    STANDARD;
ΙD
     P11496;
AC
     01-OCT-1989 (Rel. 12, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Corazonin.
DΕ
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OC
     NCBI TaxID=6978;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Corpora cardiaca;
RC
     MEDLINE=89325572; PubMed=2753132;
RX
RA
     Veenstra J.A.;
     "Isolation and structure of corazonin, a cardioactive peptide from
RT
     the American cockroach.";
RT
     FEBS Lett. 250:231-234(1989).
RL
     -!- FUNCTION: Cardioactive peptide. Corazonin is probably involved
CC
         in the physiological regulation of the heart beat.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
DR
     PIR; S05002; S05002.
     Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
KW
                               PYRROLIDONE CARBOXYLIC ACID.
                          1
FT
                   1
     MOD RES
                          11
                                  AMIDATION.
                  11
FT
     MOD RES
```

```
9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                             0;
            1; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
            4 T 4
Qy
            2 T 2
Db
RESULT 27
COXA CANFA
                    STANDARD:
                                   PRT;
                                           11 AA.
     COXA CANFA
     P99501;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
     Cytochrome c oxidase polypeptide Va (EC 1.9.3.1) (Fragment).
DE
     COX5A.
GN
     Canis familiaris (Dog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
     NCBI TaxID=9615;
OX
     [1]
RN
RP
     SEQUENCE.
     TISSUE=Heart;
RC
     MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
     dog heart proteins.";
RT
     Electrophoresis 18:2795-2802(1997).
RL
     -!- FUNCTION: This is the heme A-containing chain of cytochrome c
CC
         oxidase, the terminal oxidase in mitochondrial electron transport.
CC
     -!- CATALYTIC ACTIVITY: 4 ferrocytochrome c + O(2) = 4 ferricytochrome
CC
         c + 2 H(2)0.
CC
     -!- SUBCELLULAR LOCATION: Mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the cytochrome c oxidase Va family.
CC
     HSC-2DPAGE; P99501; DOG.
DR
     InterPro; IPR003204; Cyt c ox5A.
DR
     Pfam; PF02284; COX5A; 1.
DR
     Oxidoreductase; Heme; Mitochondrion; Inner membrane.
KW
     NON TER
                  11
                         11
FT
                11 AA; 1274 MW; 910B35C5B1AB11F5 CRC64;
     SEQUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
                                                 0; Indels
                                                                  0;
                                                                      Gaps
             1; Conservative
                                0; Mismatches
  Matches
            6 E 6
Qу
            6 E 6
Db
RESULT 28
CSI5 BACSU
                                            11 AA.
                                  PRT;
     CSI5 BACSU
                    STANDARD;
```

11 AA; 1387 MW; C7CFF32D6415AB46 CRC64;

SEOUENCE

SQ

```
P81095;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Cold shock protein CSI5 (11 kDa cold shock protein) (Fragment).
DE
     Bacillus subtilis.
OS
     Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OC
     NCBI TaxID=1423;
OX
RN
     [1]
     SEQUENCE.
RP
     STRAIN=168 / JH642;
RC
     Graumann P.L., Schmid R., Marahiel M.A.;
RA
     Submitted (OCT-1997) to Swiss-Prot.
RL
     [2]
RN
RΡ
     CHARACTERIZATION.
RC
     STRAIN=168 / JH642;
     MEDLINE=96345629; PubMed=8755892;
RX
     Graumann P., Schroeder K., Schmid R., Marahiel M.A.;
RA
     "Cold shock stress-induced proteins in Bacillus subtilis.";
RT
     J. Bacteriol. 178:4611-4619(1996).
RL
CC
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
     -!- INDUCTION: In response to low temperature.
CC
     -!- CAUTION: Could not be found in the genome of B. subtilis 168.
CC
FT
     NON TER
                  11
                         11
                11 AA; 1360 MW; 15F6ECEE6322C330 CRC64;
SO
     SEQUENCE
                           9.1%; Score 1; DB 1;
                                                    Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                   0;
                                                                       Gaps
                                 0; Mismatches
             1; Conservative
            2 R 2
Qy
            2 R 2
RESULT 29
CX5A CONAL
                                            11 AA.
                                    PRT;
     CX5A CONAL
                    STANDARD;
ID
AC
     P58848;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Conotoxin au5a.
DE
     Conus aulicus (Court cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
```

```
RN
     [2]
RP
     ERRATUM.
    Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RΆ
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RT.
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1436.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; A59146; A59146.
DR
KW
     Toxin.
     DISULFID
                   2
                          9
FT
                   3
                         10
FT
     DISULFID
                11 AA; 1441 MW; 21A36775440059D7 CRC64;
     SEQUENCE
SO
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                                  0; Indels
                                                                  0; Gaps
  Matches
             1; Conservative 0; Mismatches
            2 R 2
Qу
            7 R 7
RESULT 30
CX5B CONAL
     CX5B CONAL
                    STANDARD;
                                   PRT;
                                            11 AA.
ID
     P58849;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Conotoxin au5b.
DE
     Conus aulicus (Court cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=89437;
OX
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
RC
     TISSUE=Venom;
     MEDLINE=99452958; PubMed=10521453;
RX
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     "The T-superfamily of conotoxins.";
RT
     J. Biol. Chem. 274:30664-30671(1999).
RL
RN
     [2]
RP
     ERRATUM.
     Walker C.S., Steel D., Jacobsen R.B., Lirazan M.B., Cruz L.J.,
RA
     Hooper D., Shetty R., DelaCruz R.C., Nielsen J.S., Zhou L.M.,
RA
     Bandyopadhyay P., Craig A.G., Olivera B.M.;
RA
     J. Biol. Chem. 274:36030-36030(1999).
RL
     -!- FUNCTION: Causes dorsal fins drooping in fish. No effect is
CC
         observed when injected into mice (By similarity).
CC
```

```
-!- TISSUE SPECIFICITY: Expressed by the venom duct.
     -!- MASS SPECTROMETRY: MW=1388.6; METHOD=LSIMS.
CC
     -!- SIMILARITY: Belongs to the conotoxin T-superfamily.
CC
     PIR; B59146; B59146.
DR
KW
     Toxin.
                   2
                          9
FT
     DISULFID
                         10
     DISULFID
                   3
FT
                                  21A36775440042D7 CRC64;
     SEQUENCE
                11 AA;
                        1393 MW;
SQ
                           9.1%;
                                  Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                               0;
                                0; Mismatches
                                                    0; Indels
                                                                  0:
                                                                      Gaps
             1; Conservative
            2 R 2
Qу
            7 R 7
RESULT 31
CXL1 CONMR
ID
     CXL1 CONMR
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P58807;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Lambda-conotoxin CMrVIA.
DE
     Conus marmoreus (Marble cone).
OS
     Eukaryota; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
OC
     Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC
     Neogastropoda; Conoidea; Conidae; Conus.
OC
     NCBI TaxID=42752;
OX
RN
     [1]
     SEQUENCE, SYNTHESIS, AND MASS SPECTROMETRY.
RΡ
     TISSUE=Venom;
RC
     MEDLINE=20564325; PubMed=10988292;
RX
     Balaji R.A., Ohtake A., Sato K., Gopalakrishnakone P., Kini R.M.,
RA
     Seow K.T., Bay B.-H.;
RA
     "Lambda-conotoxins, a new family of conotoxins with unique disulfide
RT
     pattern and protein folding. Isolation and characterization from the
RT
     venom of Conus marmoreus.";
RT
     J. Biol. Chem. 275:39516-39522(2000).
RL
     -!- FUNCTION: Inhibits the neuronal noradrenaline transporter.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom duct.
CC
     -!- MASS SPECTROMETRY: MW=1237.93; MW ERR=0.21; METHOD=Electrospray.
CC
     -!- SIMILARITY: Belongs to the chi/lambda-conotoxin family.
CC
     Neurotoxin; Toxin; Hydroxylation.
KW
     DISULFID
                   .2
                          11
FT
FT
     DISULFID
                   3
                           Я
FT
     MOD RES
                  10
                          10
                                   HYDROXYLATION.
                        1226 MW;
                                   277AAC60B7232B58 CRC64;
     SEQUENCE
                11 AA;
SQ
                                   Score 1; DB 1; Length 11;
  Query Match
                            9.1%;
                           100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                       Indels
                                                                               0;
                                 0; Mismatches
                                                    0;
             1; Conservative
  Matches
```

-!- SUBCELLULAR LOCATION: Secreted.

CC

```
3 K 3
Qу
            6 K 6
Db
RESULT 32
EFG CLOPA
                                    PRT;
                                            11 AA.
     EFG CLOPA
                    STANDARD;
     P81350;
AC
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Elongation factor G (EF-G) (CP 5) (Fragment).
DE
     FUSA.
GN
     Clostridium pasteurianum.
OS
     Bacteria; Firmicutes; Clostridia; Clostridiales; Clostridiaceae;
OC
     Clostridium.
OC
OX
     NCBI TaxID=1501;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=W5;
RX
     MEDLINE=98291870; PubMed=9629918;
RA
     Flengsrud R., Skjeldal L.;
     "Two-dimensional gel electrophoresis separation and N-terminal
RT
     sequence analysis of proteins from Clostridium pasteurianum W5.";
RT
     Electrophoresis 19:802-806(1998).
RL
     -!- FUNCTION: This protein promotes the GTP-dependent translocation of
CC
         the nascent protein chain from the A-site to the P-site of the
CC
CC
         ribosome.
     -!- SUBCELLULAR LOCATION: Cytoplasmic.
CC
     -!- SIMILARITY: Belongs to the GTP-binding elongation factor family.
CC
         EF-G/EF-2 subfamily.
CC
     InterPro; IPR000795; EF GTPbind.
DR
     PROSITE; PS00301; EFACTOR GTP; PARTIAL.
DR
     Elongation factor; Protein biosynthesis; GTP-binding.
KW
FT
     NON TER
                  11
                         11
                        1337 MW; 412E71F1D9C33B17 CRC64;
     SEQUENCE
                11 AA;
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                   0; Indels
                                                                   0; Gaps
                                                                               0;
                                 0; Mismatches
             1; Conservative
  Matches
            3 K 3
Qу
            1 K 1
Db
RESULT 33
FAR6 PENMO
                                    PRT;
                                            11 AA.
     FAR6 PENMO
                     STANDARD;
     P83321;
AC
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     FMRFamide-like neuropeptide FLP6 (DGRTPALRLRF-amide).
DE
     Penaeus monodon (Penoeid shrimp).
OS
```

Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;

OC

```
Eumalacostraca; Eucarida; Decapoda; Dendrobranchiata; Penaeoidea;
OC
OC
     Penaeidae; Penaeus.
OX
     NCBI TaxID=6687;
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Eyestalk;
RC
     MEDLINE=21956277; PubMed=11959015;
RX
     Sithigorngul P., Pupuem J., Krungkasem C., Longyant S.,
RA
     Chaivisuthangkura P., Sithigorngul W., Petsom A.;
RA
     "Seven novel FMRFamide-like neuropeptide sequences from the eyestalk
RT
     of the giant tiger prawn Penaeus monodon.";
RT
     Comp. Biochem. Physiol. 131B:325-337(2002).
RL
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- MASS SPECTROMETRY: MW=1301.8; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
CC
         family.
     GO: GO:0007218; P:neuropeptide signaling pathway; TAS.
DR
KW
     Neuropeptide; Amidation.
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
                        1301 MW; 9A19C860072DC771 CRC64;
SQ
     SEQUENCE
                11 AA;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                  0; Indels
                                                                              0;
                                0; Mismatches
                                                                  0; Gaps
             1; Conservative
           11 D 11
Qу
              1
            1 D 1
Db
RESULT 34
FAR9 CALVO
                                   PRT;
                                           11 AA.
                    STANDARD;
     FAR9 CALVO
AC
     P41864;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     01-NOV-1995 (Rel. 32, Last annotation update)
DT
DE
     CalliFMRFamide 9.
     Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopteryqota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
OX
     NCBI TaxID=27454;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Thoracic ganglion;
     MEDLINE=92196111; PubMed=1549595;
RX
     Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA
     Rehfeld J.F., Thorpe A.;
RA
     "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT
     neuropeptides (designated calliFMRFamides) from the blowfly
RT
     Calliphora vomitoria.";
RT
     Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
RL
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
CC
         family.
     PIR; I41978; I41978.
DR
KW
     Neuropeptide; Amidation.
```

```
11 AA; 1359 MW; 8160CE46CAA44321 CRC64;
     SEOUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                 0; Gaps
                                                                              0;
                                                  0; Indels
             1; Conservative
                              0; Mismatches
 Matches
            3 K 3
Qy
            5 K 5
Db
RESULT 35
HS70 PINPS
                    STANDARD;
                                   PRT;
                                           11 AA.
     HS70 PINPS
AC
     P81672;
     15-JUL-1999 (Rel. 38, Created)
ייים
     15-JUL-1999 (Rel. 38, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
DΕ
     Heat shock 70 kDa protein (Fragment).
OS
     Pinus pinaster (Maritime pine).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus.
OC
OX
     NCBI TaxID=71647;
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Needle;
RC
     MEDLINE=99274088; PubMed=10344291;
RX
     Costa P., Pionneau C., Bauw G., Dubos C., Bahrman N., Kremer A.,
RA
     Frigerio J.-M., Plomion C.;
RA
     "Separation and characterization of needle and xylem maritime pine
RT
     proteins.";
RT
     Electrophoresis 20:1098-1108(1999).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this protein
CC
         (spot N164) is: 5.4, its MW is: 73 kDa.
CC
     -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC
     ATP-binding; Heat shock; Multigene family.
KW
     NON_TER
                   1
                          1
FT
                         11
     NON TER
                  11
FT
                       1228 MW; 037C1BE8DAA44DD0 CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                  0; Gaps
                                                                              0;
                                 0: Mismatches
                                                  0; Indels
             1; Conservative
  Matches
            6 E 6
Qу
            2 E 2
Db
RESULT 36
LADD ONCMY
                                   PRT;
                                           11 AA.
     LADD ONCMY
                    STANDARD;
ID
AC
     P81018;
     01-NOV-1997 (Rel. 35, Created)
DT
     01-NOV-1997 (Rel. 35, Last sequence update)
DT
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
```

AMIDATION.

MOD RES

FT

11

11

```
DΕ
    Ladderlectin (Fragment).
    Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
    Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
    NCBI TaxID=8022;
OX
    [1]
RN
    SEQUENCE.
RP
    TISSUE=Blood;
RC
    MEDLINE=97293418; PubMed=9149391;
RX
    Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RA
    "A rainbow trout lectin with multimeric structure.";
RT
    Comp. Biochem. Physiol. 116B:385-390(1997).
RL
    -!- FUNCTION: Lectin that binds sepharose.
CC
    -!- COFACTOR: Calcium is essential for sepharose binding.
CC
    -!- SUBUNIT: Multimeric.
CC
    Lectin; Calcium.
ΚW
FT
    NON TER
                 11
                        11
               11 AA; 1163 MW; 0B26227FF6D45404 CRC64;
    SEQUENCE
SQ
                          9.1%; Score 1; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                               0; Gaps
                                                                           0:
            1; Conservative 0; Mismatches
                                                0; Indels
  Matches
           1 A 1
Qу
             -
            1 A 1
Db
RESULT 37
LPW THETH
                                  PRT;
                                          11 AA.
    LPW THETH
                   STANDARD;
ΙD
     P05624;
AC
     01-NOV-1988 (Rel. 09, Created)
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     30-MAY-2000 (Rel. 39, Last annotation update)
DT
     Trp operon leader peptide.
DE
GN
     TRPL.
     Thermus thermophilus.
OS
     Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
OC
OC
     Thermus.
OX
     NCBI TaxID=274;
RN
     [1]
     SEQUENCE FROM N.A.
RP
     STRAIN=HB8 / ATCC 27634;
RC
     MEDLINE=89000781; PubMed=2844259;
RX
     Sato S., Nakada Y., Kanaya S., Tanaka T.;
RA
     "Molecular cloning and nucleotide sequence of Thermus thermophilus
RT
     HB8 trpE and trpG.";
RT
     Biochim. Biophys. Acta 950:303-312(1988).
RL
     -!- FUNCTION: THIS PROTEIN IS INVOLVED IN CONTROL OF THE BIOSYNTHESIS
CC
CC
         OF TRYPTOPHAN.
     ______
CC
     This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
     between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC
     the European Bioinformatics Institute. There are no restrictions on its
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     use by non-profit institutions as long as its content is in no way
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     entities requires a license agreement (See http://www.isb-sib.ch/announce/
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     or send an email to license@isb-sib.ch).
CC
     ______
CC
     EMBL; X07744; CAA30565.1; -.
DR
KW
     Tryptophan biosynthesis; Leader peptide.
     SEQUENCE 11 AA; 1228 MW; 364B295A772DC5A7 CRC64;
SQ
                          9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                          0;
                             0; Mismatches 0; Indels
                                                               0; Gaps
  Matches
            1; Conservative
            1 A 1
Qy
              - 1
            2 A 2
Db
RESULT 38
LSK1 LEUMA
                                  PRT;
                                         11 AA.
     LSK1 LEUMA
                   STANDARD;
AC
     P04428;
DT
     13-AUG-1987 (Rel. 05, Created)
     13-AUG-1987 (Rel. 05, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Leucosulfakinin-I (LSK-I).
     Leucophaea maderae (Madeira cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
OC
     Blaberidae; Leucophaea.
oc
     NCBI TaxID=6988;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=86315858; PubMed=3749893;
RX
     Nachman R.J., Holman G.M., Haddon W.F., Ling N.;
RA
     "Leucosulfakinin, a sulfated insect neuropeptide with homology to
RT
     gastrin and cholecystokinin.";
RT
     Science 234:71-73(1986).
RL
     -!- FUNCTION: Change the frequency and amplitude of contractions of
CC
         the hingut. Inhibits muscle contraction of hindgut.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     PIR; A01622; GMROL.
DR
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
DR
     Hormone; Amidation; Sulfation.
KW
                  6
                                 SULFATION.
     MOD RES
                         6
 FT
                                 AMIDATION.
     MOD RES
                        11
 FT
                  11
                11 AA; 1459 MW; 7E4E0680E86B5AAB CRC64;
     SEQUENCE
 SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                         100.0%; Pred. No. 9e+04;
   Best Local Similarity
            1; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
  Matches
            6 E 6
 Qу
              -1
            1 E 1
 Db
```

```
RESULT 39
LSKP PERAM
                    STANDARD;
                                   PRT;
                                           11 AA.
     LSKP PERAM
ID
     P36885;
AC
     01-JUN-1994 (Rel. 29, Created).
DT
     01-JUN-1994 (Rel. 29, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
     Perisulfakinin (Pea-SK-I).
DE
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OC
     NCBI TaxID=6978;
OX
RN
     [1]
RP
     SEQUENCE.
     TISSUE=Corpora cardiaca;
RC
     MEDLINE=90137190; PubMed=2615921;
RX
RA
     Veenstra J.A.;
     "Isolation and structure of two gastrin/CCK-like neuropeptides from
RT
     the American cockroach homologous to the leucosulfakinins.";
RT
RL
     Neuropeptides 14:145-149(1989).
     -!- FUNCTION: Stimulates hindgut contractions.
CC
     -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
CC
     PIR; A60656; A60656.
     InterPro; IPR001651; Gastrin.
DR
     PROSITE; PS00259; GASTRIN; 1.
DR
     Hormone; Amidation; Sulfation.
KW
                          6
                                  SULFATION.
                   6
FT
     MOD RES
     MOD RES
                         11
                                  AMIDATION.
FT
                  11
                11 AA; 1445 MW; 8B4E0680E86B5AAA CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                    0; Indels
                                                                   0; Gaps
                                                                               0;
            1; Conservative 0; Mismatches
  Matches
            6 E 6
Qу
            1 E 1
Db
RESULT 40
MHBI KLEPN
                                    PRT;
                                            11 AA.
                    STANDARD;
     MHBI KLEPN
ΙD
     P80580;
AC
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
DΤ
     Maleylpyruvate isomerase (EC 5.2.1.4) (Fragment).
DΕ
GN
     MHBI.
     Klebsiella pneumoniae.
OS
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Klebsiella.
OC
     NCBI TaxID=573;
OX
RN
     [1]
     SEQUENCE.
RP
     MEDLINE=96349117; PubMed=8760924;
RX
     Robson N.D., Parrott S., Cooper R.A.;
RA
```

```
"In vitro formation of a catabolic plasmid carrying Klebsiella
RT
    pneumoniae DNA that allows growth of Escherichia coli K-12 on 3-
RT
    hydroxybenzoate.";
RT
    Microbiology 142:2115-2120(1996).
RL
    -!- CATALYTIC ACTIVITY: 3-maleylpyruvate = 3-fumarylpyruvate.
CC
KW
     Isomerase.
    NON TER
FT
                  11
                         11
                11 AA; 1387 MW; 1EE0E2DD49C9D5AB CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 9e+04;
 Best Local Similarity
                                                                     Gaps
                                                                              0;
                                0; Mismatches
                                                   0; Indels
 Matches
            1; Conservative
            3 K 3
QУ
            2 K 2
Db
RESULT 41
MLG THETS
                                   PRT;
                                           11 AA.
ID
    MLG THETS
                    STANDARD;
AC
     P41989;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Melanotropin gamma (Gamma-melanocyte stimulating hormone) (Gamma-MSH).
DE
     Theromyzon tessulatum (Leech).
OS
     Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC
     Rhynchobdellida; Glossiphoniidae; Theromyzon.
OC
OX
     NCBI_TaxID=13286;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Brain;
     MEDLINE=94298944; PubMed=8026574;
RX
     Salzet M., Wattez C., Bulet P., Malecha J.;
RA
     "Isolation and structural characterization of a novel peptide related
RT
     to gamma-melanocyte stimulating hormone from the brain of the leech
RT
     Theromyzon tessulatum.";
RT
     FEBS Lett. 348:102-106(1994).
RL
     -!- SIMILARITY: Belongs to the POMC family.
CC
     PIR; S45698; S45698.
DR
     Hormone; Amidation.
KW
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
                11 AA; 1486 MW; 2DB8FACE6409C1E8 CRC64;
SO
     SEOUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
             1; Conservative
                                                                  0; Gaps
                                 0; Mismatches
                                                 0; Indels
  Matches
            2 R 2
Qу
             - [
            7 R 7
Db
RESULT 42
NUHM CANFA
                                   PRT;
                                           11 AA.
                    STANDARD;
     NUHM CANFA
```

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AC
     P49820;
     01-OCT-1996 (Rel. 34, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     NADH-ubiquinone oxidoreductase 24 kDa subunit (EC 1.6.5.3)
DE
     (EC 1.6.99.3) (Fragment).
DE
     NDUFV2.
GN
     Canis familiaris (Dog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
     NCBI TaxID=9615;
OX
RN
     [1]
     SEOUENCE.
RP
     TISSUE=Heart;
RC
     MEDLINE=98163340; PubMed=9504812;
RX
     Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
     "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
RT
     dog heart proteins.";
     Electrophoresis 18:2795-2802(1997).
RL
     -!- FUNCTION: TRANSFER OF ELECTRONS FROM NADH TO THE RESPIRATORY
CC
         CHAIN. THE IMMEDIATE ELECTRON ACCEPTOR FOR THE ENZYME IS BELIEVED
CC
         TO BE UBIQUINONE. COMPONENT OF THE FLAVOPROTEIN-SULFUR (FP)
CC
CC
         FRAGMENT OF THE ENZYME.
     -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
CC
     -!- CATALYTIC ACTIVITY: NADH + acceptor = NAD(+) + reduced acceptor.
CC
     -!- COFACTOR: Binds 1 2Fe-2S cluster (Potential).
CC
     -!- SUBUNIT: Mammalian complex I is composed of 45 different subunits.
CC
     -!- SUBCELLULAR LOCATION: Matrix and cytoplasmic side of the
CC
         mitochondrial inner membrane.
CC
     -!- SIMILARITY: Belongs to the complex I 24 kDa subunit family.
CC
     HSC-2DPAGE; P49820; DOG.
DR
     InterPro; IPR002023; Cmplx1_24kDa.
DR
     PROSITE; PS01099; COMPLEX1 24K; PARTIAL.
DR
     Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Metal-binding;
KW
     Iron-sulfur; Iron; 2Fe-2S.
KW
FT
     NON TER
                  11
                         11
                        1099 MW; 267F5369C9C72DD8 CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                                    0; Indels
                                                                  0; Gaps
                               0; Mismatches
             1; Conservative
  Matches
            1 A 1
Qу
            2 A 2
Db
RESULT 43
NXSN PSETE
                                    PRT;
                                            11 AA.
     NXSN PSETE
                    STANDARD;
AC
     P59072;
     28-FEB-2003 (Rel. 41, Created)
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Short neurotoxin N1 (Alpha neurotoxin) (Fragment).
DE
     Pseudonaja textilis (Eastern brown snake).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
```

```
Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Elapidae; Acanthophiinae; Pseudonaja.
OC
     NCBI TaxID=8673;
OX
RN
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Venom;
RC
     MEDLINE=99449602; PubMed=10518793;
RX
     Gong N.L., Armugam A., Jeyaseelan K.;
     "Postsynaptic short-chain neurotoxins from Pseudonaja textilis: cDNA
RT
     cloning, expression and protein characterization.";
RT
     Eur. J. Biochem. 265:982-989(1999).
RL
     -!- FUNCTION: Lethal neurotoxin, binds and inhibits nicotinic
CC
         acetylcholine receptors (nAChR).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the venom gland.
CC ·
     -!- MASS SPECTROMETRY: MW=6236; METHOD=Electrospray.
CC
     -!- MISCELLANEOUS: LD(50) is 0.84 mg/kg by intravenous injection.
CC
     -!- SIMILARITY: Belongs to the snake toxin family.
CC
     InterPro; IPR003571; Snake toxin.
DR
     PROSITE; PS00272; SNAKE TOXIN; PARTIAL.
DR
     Toxin; Neurotoxin; Postsynaptic neurotoxin;
KW
     Acetylcholine receptor inhibitor; Multigene family.
KW
FT
     UNSURE
                   3
                          3
                         11
                  11
FT
     NON TER
                                  OD1EF0C81B58732B CRC64;
                11 AA; 1319 MW;
SO
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                               0;
                                                    0; Indels
                                 0; Mismatches
             1; Conservative
            4 T 4
Qу
            2 T 2
Db
RESULT 44
OAIF SARBU
                                    PRT;
                                            11 AA.
     OAIF SARBU
                    STANDARD;
ID
     P83518;
AC
     10-OCT-2003 (Rel. 42, Created)
DT
     10-OCT-2003 (Rel. 42, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ovary-derived ACE interactive factor (Neb-ODAIF) [Contains: Neb-
DE
     ODAIF(1-9); Neb-ODAIF(1-7)].
DE
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
os
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Sarcophagidae; Sarcophaga.
OC
     NCBI TaxID=7385;
OX
RN
      [1]
     SEQUENCE, SYNTHESIS, CHARACTERIZATION, AND MASS SPECTROMETRY.
RP
     TISSUE=Ovary;
RC
     MEDLINE=22272747; PubMed=12383874;
RX
     Vandingenen A., Hens K., Baggerman G., Macours N., Schoofs L.,
RA
      De Loof A., Huybrechts R.;
 RA
      "Isolation and characterization of an angiotensin converting enzyme
 RT
      substrate from vitellogenic ovaries of Neobellieria bullata.";
 RT
```

```
RL
     Peptides 23:1853-1863(2002).
    -!- FUNCTION: Substrate for angiotensin converting enzyme (ACE) in
CC
CC
         vitro.
    -!- PTM: ACE hydrolyzes Neb-ODAIF by sequentially cleaving off two C-
CC
         terminal dipeptides.
CC
    -!- MASS SPECTROMETRY: MW=1312.7; METHOD=MALDI; RANGE=1-11.
CC
    -!- SIMILARITY: To the N-terminal part of insect vitellogenins.
CC
                                 NEB-ODAIF.
                        11
     PEPTIDE
                  1
FT
                          9
                   1
                                  NEB-ODAIF(1-9).
     PEPTIDE
FT
                          7
                                 NEB-ODAIF (1-7).
     PEPTIDE
                   1
FT
                                  4E114BB566C5A763 CRC64;
     SEQUENCE
               11 AA; 1314 MW;
SQ
                           9.1%; Score 1; DB 1; Length 11;
 Ouery Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                             0;
                              0; Mismatches 0; Indels
                                                                 0; Gaps
 Matches
            1; Conservative
            3 K 3
Qу
              Db
            2 K 2
RESULT 45
PKC1 CARMO
     PKC1 CARMO
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P82684;
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Pyrokinin-1 (Cam-PK-1) (FXPRL-Amide).
DΕ
     Carausius morosus (Indian stick insect).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Phasmatodea; Euphasmida; Phasmatoidea;
OC
     Heteronemiidae; Carausius.
OC
OX
     NCBI TaxID=7022;
RN
     [1]
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RP
     TISSUE=Corpora cardiaca;
RC
     Predel R., Kellner R., Gaede G.;
RA
     "Myotropic neuropeptides from the retrocerebral complex of the stick
RT
     insect, Carausius morosus (Phasmatodea: Lonchodidae).";
RT
     Eur. J. Entomol. 96:275-278(1999).
RL
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
CC
         activity).
     -!- MASS SPECTROMETRY: MW=1235; METHOD=MALDI.
CC
     -!- SIMILARITY: Belongs to the pyrokinin family.
CC
     InterPro; IPR001484; Pyrokinin.
DR -
     PROSITE; PS00539; PYROKININ; FALSE NEG.
DR
     Neuropeptide; Amidation; Pyrokinin.
ΚW
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
                11 AA; 1236 MW; 2BFA5225BB46C1A8 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
             1; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0:
            6 E 6
Qу
```

```
RESULT 46
PQQC PSEFL
                              PRT;
                                      11 AA.
    PQQC PSEFL
                  STANDARD;
ID
    P55173;
AC
    01-OCT-1996 (Rel. 34, Created)
DT
    01-OCT-1996 (Rel. 34, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Coenzyme PQQ synthesis protein C (Pyrroloquinoline quinone
DE
    biosynthesis protein C) (Fragment).
DΕ
GN
    Pseudomonas fluorescens.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC
    Pseudomonadaceae; Pseudomonas.
OC
    NCBI TaxID=294;
OX
RN
    [1]
    SEQUENCE FROM N.A.
RP
RC
    STRAIN=CHA0;
    MEDLINE=96064397; PubMed=8526497;
RX
    Schnider U., Keel C., Defago G., Haas D.;
RA
    "Tn5-directed cloning of pqq genes from Pseudomonas fluorescens CHA0:
RT
    mutational inactivation of the genes results in overproduction of the
RT
    antibiotic pyoluteorin.";
RT
    Appl. Environ. Microbiol. 61:3856-3864(1995).
RL
     -!- PATHWAY: Pyrroloquinoline quinone (PQQ) biosynthesis.
CC
     -!- SIMILARITY: Belongs to the pqqC family.
CC
     CC
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CC
     between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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     or send an email to license@isb-sib.ch).
CC
     ______
CC
     EMBL; X87299; CAA60734.1; -.
DR
     PIR; S58244; S58244.
DR
     HAMAP; MF 00654; -; 1.
DR
     PQQ biosynthesis.
KW
              11
                       11
     NON TER
FT
               11 AA; 1182 MW; 89DF46E4C5B73771 CRC64;
     SEQUENCE
SO
                         9.1%; Score 1; DB 1; Length 11;
  Ouery Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
           1; Conservative 0; Mismatches 0; Indels
                                                                        0;
                                                            0; Gaps
  Matches
           4 T 4
Qу
            - 1
           2 T 2
Db
RESULT 47
PVK1 PERAM
                   STANDARD; PRT;
                                        11 AA.
ID PVK1 PERAM
     P418\overline{37};
АC
```

```
01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
     Periviscerokinin-1 (Pea-PVK-1).
DE
     Periplaneta americana (American cockroach).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
     Blattidae; Periplaneta.
OC
     NCBI TaxID=6978;
OX
RN
     [1]
RΡ
     SEQUENCE, AND SYNTHESIS.
     TISSUE=Abdominal perisympathetic organs;
RC
     MEDLINE=95232021; PubMed=7716075;
RX
     Predel R., Linde D., Rapus J., Vettermann S., Penzlin H.;
RA
     "Periviscerokinin (Pea-PVK): a novel myotropic neuropeptide from the
RT
     perisympathetic organs of the American cockroach.";
RT
     Peptides 16:61-66(1995).
RL
     -!- FUNCTION: MYOACTIVE PEPTIDE; HAS EXCITORY ACTIONS ON THE
CC
CC
         HYPERNEURAL MUSCLE.
     Neuropeptide; Amidation.
KW
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
                                 39DB5419D7605728 CRC64;
                11 AA; 1114 MW;
SQ
     SEQUENCE
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                 0; Mismatches
                                                    0; Indels
                                                                   0;
                                                                       Gaps
             1; Conservative
            1 A 1
Qу
            2 A 2
RESULT 48
RANC RANPI
                                            11 AA.
     RANC RANPI
                    STANDARD;
                                    PRT;
AC
     P08951;
     01-NOV-1988 (Rel. 09, Created)
DT
     01-NOV-1988 (Rel. 09, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Ranatensin-C.
     Rana pipiens (Northern leopard frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8404;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=84131098; PubMed=6141890;
RX
RA
     Nakajima T.;
     Unpublished results, cited by:
RL
     Erspamer V., Erspamer G.F., Mazzanti G., Endean R.;
RL
RL
     Comp. Biochem. Physiol. 77C:99-108(1984).
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the bombesin/neuromedin B/ranatensin
CC
CC
         family.
     InterPro; IPR000874; Bombesin.
DR
```

```
Pfam; PF02044; Bombesin; 1.
DR
     PROSITE; PS00257; BOMBESIN; 1.
DR
     Amphibian defense peptide; Bombesin family; Amidation.
KW
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1304 MW; D6C9885A61ADC366 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9e+04;
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            4 T 4
Qу
            2 T 2
Db
RESULT 49
RE41 LITRU
     RE41 LITRU
                                           11 AA.
                                   PRT;
ID
                    STANDARD;
AC
     P82074:
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Rubellidin 4.1.
DΕ
     Litoria rubella (Desert tree frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
OC
     Pelodryadinae; Litoria.
     NCBI TaxID=104895;
OX
RN
     [1]
RP
     SEQUENCE, AND MASS SPECTROMETRY.
RC
     TISSUE=Skin secretion;
     Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA
RA
     Tyler M.J., Wallace J.C.;
RT
     "The structure of new peptides from the Australin red tree frog
RT
     'Litoria rubella'. The skin peptide profile as a probe for the study
RT
     of evolutionary trends of amphibians.";
RL
     Aust. J. Chem. 49:955-963(1996).
CC
     -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC
         activity.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1039; METHOD=FAB.
KW
     Amphibian defense peptide; Amidation.
FT
     MOD RES
                  11
                                  AMIDATION.
                         11
     SEQUENCE
                11 AA; 1040 MW;
                                 84ED5CBC2877205A CRC64;
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity 100.0%; Pred. No. 9e+04;
  Matches
             1; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
           11 D 11
Qy
Db
            4 D 4
```

RESULT 50 RRPL CHAV

```
P13179;
AC
    01-JAN-1990 (Rel. 13, Created)
DT
    01-JAN-1990 (Rel. 13, Last sequence update)
DT
    28-FEB-2003 (Rel. 41, Last annotation update)
DT
    RNA polymerase beta subunit (EC 2.7.7.48) (Large structural protein)
DE
    (L protein) (Fragment).
DΕ
GN
    Chandipura virus (strain 1653514).
OS
    Viruses; ssRNA negative-strand viruses; Mononegavirales;
OC
OC
    Rhabdoviridae; Vesiculovirus.
ΟX
    NCBI TaxID=11273;
RN
     [1]
RP
    SEQUENCE FROM N.A.
    MEDLINE=89299473; PubMed=2741347;
RX
    Masters P.S., Bhella R.S., Butcher M., Patel B., Ghosh H.P.,
RA
    Banerjee A.K.;
RA
     "Structure and expression of the glycoprotein gene of Chandipura
RT
RT
     virus.";
    Virology 171:285-290(1989).
RL
    -!- FUNCTION: THIS PROTEIN IS PROBABLY A COMPONENT OF THE ACTIVE
CC
        POLYMERASE. IT MAY FUNCTION IN RNA SYNTHESIS, CAPPING, AS WELL AS
CC
        METHYLATION OF CAPS, AND POLY(A) SYNTHESIS.
CC
    -!- CATALYTIC ACTIVITY: N nucleoside triphosphate = N diphosphate +
CC
CC
        {RNA}(N).
    -!- SUBUNIT: THOUGHT TO FORM A TRANSCRIPTION COMPLEX WITH THE
CC
        NUCLEOCAPSID (N) PROTEIN.
CC
     -!- SIMILARITY: WITH THE L PROTEIN OF OTHER RHABDOVIRUSES AND
CC
        PARAMYXOVIRUSES.
CC
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     or send an email to license@isb-sib.ch).
CC
     _____
CC
     EMBL; J04350; AAA42917.1; -.
DR
     Transferase; RNA-directed RNA polymerase.
KW
              11
FT
     NON TER
                      11
     SEQUENCE 11 AA; 1189 MW; 0335D6E3AAB2D764 CRC64;
SO
                        9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
  Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps
   11 D 11
Qу
           2 D 2
Db
RESULT 51
T2P1 PROVU
                   STANDARD; PRT; 11 AA.
     T2P1 PROVU
ΙD
     P31031;
AC
     01-JUL-1993 (Rel. 26, Created)
DT
```

STANDARD; PRT; 11 AA.

RRPL CHAV

ID

```
01-JUL-1993 (Rel. 26, Last sequence update)
DT
    10-OCT-2003 (Rel. 42, Last annotation update)
DT
    Type II restriction enzyme PvuI (EC 3.1.21.4) (Endonuclease PvuI)
DE
    (R.PvuI) (Fragment).
DE
GN
    PVUIR.
    Proteus vulgaris.
OS
    Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
    Enterobacteriaceae; Proteus.
OC
    NCBI TaxID=585;
OX
    [1]
RN
    SEQUENCE FROM N.A.
RP
    STRAIN=ATCC 13315;
RC
    MEDLINE=93087186; PubMed=1454536;
RX
    Smith M.D., Longo M., Gerard G.F., Chatterjee D.K.;
RA
    "Cloning and characterization of genes for the PvuI restriction and
RT
    modification system.";
RT
    Nucleic Acids Res. 20:5743-5747(1992).
RL
    -!- FUNCTION: RECOGNIZES THE DOUBLE-STRANDED SEQUENCE CGATCG AND
CC
CC
        CLEAVES AFTER T-4.
    -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage of DNA to give
CC
        specific double-stranded fragments with terminal 5'-phosphates.
CC
     CC
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    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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     or send an email to license@isb-sib.ch).
CC
     _____
CC
     EMBL; L04163; AAA25660.1; -.
DR
     PIR; S35490; S35490.
DR
     REBASE; 1541; PvuI.
DR
     Restriction system; Hydrolase; Nuclease; Endonuclease.
KW
     NON TER
                       1
FT
                 1
               11 AA; 1300 MW; 9F0CDE7955B72B1A CRC64;
     SEQUENCE
SQ
                         9.1%; Score 1; DB 1; Length 11;
  Ouery Match
                        100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                             0; Gaps
           1; Conservative 0; Mismatches 0; Indels
  Matches
           9 S 9
QУ
             2 S 2
Db
RESULT 52
TIN1 HOPTI
                                 PRT;
                                        11 AA.
                   STANDARD;
     TIN1 HOPTI
ID
     P82651;
AC
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Tigerinin-1.
DE
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
```

```
OC
     Hoplobatrachus.
    NCBI TaxID=103373;
OX
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
RX
     PubMed=11031261;
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
CC
     Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
KW
FT
     DISULFID
                   2
                         10
                         11
                                  AMIDATION.
FT
     MOD RES
                  11
                11 AA; 1344 MW; A2087DC960476056 CRC64;
SO
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                                                                      Gaps
                                 0; Mismatches
                                                   0; Indels
                                                                  0;
             1; Conservative
  Matches
            4 T 4
Qу
            3 T 3
Db
RESULT 53
TIN4 HOPTI
                                            11 AA.
                    STANDARD;
                                    PRT;
     TIN4 HOPTI
     P82654;
AC
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DΕ
     Tigerinin-4.
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OC
OX
     NCBI TaxID=103373;
RN
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
     TISSUE=Skin secretion;
RC
     PubMed=11031261;
RX
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
CC
```

```
DISULFID
                   3
                         11
FT
                        1248 MW; 117D8EFD37605DCB CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                  0; Indels
             1; Conservative
            2 R 2
Qy
Db
            1 R 1
RESULT 54
TKC2 CALVO
     TKC2 CALVO
                                    PRT;
                                            11 AA.
                    STANDARD;
ID
AC
     P41518;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Callitachykinin II.
     Calliphora vomitoria (Blue blowfly).
OS
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Calliphoridae; Calliphora.
OC
OX
     NCBI TaxID=27454;
RN
     [1]
     SEQUENCE, AND SYNTHESIS.
RΡ
     MEDLINE=95075727; PubMed=7984492;
RX
     Lundquist C.T., Clottens F.L., Holman G.M., Nichols R., Nachman R.J.,
RA
RA
     Naessel D.R.;
     "Callitachykinin I and II, two novel myotropic peptides isolated from
RT
     the blowfly, Calliphora vomitoria, that have resemblances to
RT
     tachykinins.";
RT
     Peptides 15:761-768(1994).
RL
     -!- FUNCTION: Myoactive peptide.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: SOME SIMILARITY TO TACHYKININS.
CC
     Tachykinin; Neuropeptide; Amidation.
KW
                                  AMIDATION.
FT
     MOD RES
                  11
                         11
     SEQUENCE
                        1103 MW; 15D7E3F9C9CDD444 CRC64;
SQ
                11 AA;
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
                               0; Mismatches
                                                    0; Indels
                                                                  0;
                                                                      Gaps
  Matches
             1; Conservative
            1 A 1
Qу
              1
Db
            6 A 6
RESULT 55
TKN1 PSEGU
                                    PRT;
                                            11 AA.
     TKN1 PSEGU
                    STANDARD;
ΙD
     P42986;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
```

Amphibian defense peptide; Antibiotic.

KW

```
10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-I (PG-KI).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
    Myobatrachinae; Pseudophryne.
OC
    NCBI TaxID=30349;
ΟX
RN
     [1]
     SEQUENCE.
RP
RC
    TISSUE=Skin secretion;
    MEDLINE=90287814; PubMed=2356157;
RX
    Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
        muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; B60409; B60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
K₩
     Pyrrolidone carboxylic acid.
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
\mathbf{FT}
     MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1269 MW; 3DBA7C37C9CB1AB7 CRC64;
     SEQUENCE
SQ
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                               0; Mismatches
                                                  0; Indels
                                                                      Gaps
                                                                               0;
  Matches
             1; Conservative
           11 D 11
Qу
            5 D 5
Db
RESULT 56
TKN1 UPEIN
                                   PRT;
                                            11 AA.
     TKN1 UPEIN
                    STANDARD;
ID
AC
     P82026;
     30-MAY-2000 (Rel. 39, Created)
DT
     30-MAY-2000 (Rel. 39, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperin 1.1.
     Uperoleia inundata (Floodplain toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OC
OX
     NCBI TaxID=104953;
```

```
RN
     [1]
     SEQUENCE, AND MASS SPECTROMETRY.
RP
     TISSUE=Skin secretion;
RC
     Bradford A.M., Raftery M.J., Bowie J.H., Tyler M.J., Wallace J.C.,
RA
     Adams G.W., Severini C.;
RA
RT
     "Novel uperin peptides from the dorsal glands of the australian
     floodplain toadlet Uperoleia inundata.";
RT
     Aust. J. Chem. 49:475-484(1996).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC
     -!- MASS SPECTROMETRY: MW=1208; METHOD=FAB.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
                                  3293693E59CDD457 CRC64;
     SEOUENCE
                11 AA; 1226 MW;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
                                 0; Mismatches
                                                   0; Indels
                                                                  0:
  Matches
             1; Conservative
                                                                      Gaps
            1 A 1
Qy
            2 A 2
Db
RESULT 57
TKN1 UPERU
     TKN1 UPERU
                    STANDARD;
                                    PRT;
                                            11 AA.
АC
     P08612;
DT
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperolein.
OS
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=75131227; PubMed=1120493;
     Anastasi A., Erspamer V., Endean R.;
RA
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RT
     Experientia 31:394-395(1975).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
```

```
secretagogues, and contract (directly or indirectly) many smooth
CC
CC
        muscles.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Skin.
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
CC
    InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
    SMART; SM00203; TK; 1.
DR
    PROSITE; PS00267; TACHYKININ; 1.
DR
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
                11 AA; 1252 MW; 32867C3E59CDD457 CRC64;
     SEQUENCE
SQ
                           9.1%; Score 1; DB 1; Length 11;
  Ouery Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                              0;
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
             1; Conservative
  Matches
Qу
           11 D 11
Dh
            3 D 3
RESULT 58
TKN2 PSEGU
                    STANDARD;
                                   PRT;
     TKN2 PSEGU
ΙD
AC
     P42987;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-II (PG-KII).
DΕ
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; C60409; C60409.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
```

```
Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
\mathbf{FT}
     MOD RES
                   1
                          1
     MOD RES
                  11
                         11
                                  AMIDATION.
FT
     SEQUENCE
                11 AA; 1246 MW; 3A247C37C9CB1AB7 CRC64;
SO
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
  Matches
             1; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                               0;
           11 D 11
Qу
            5 D 5
Db
RESULT 59
TKN3 PSEGU
ID
     TKN3 PSEGU
                    STANDARD;
                                    PRT;
                                            11 AA.
AC.
     P42988;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Kassinin-like peptide K-III (PG-KIII).
OS
     Pseudophryne guentheri (Guenther's toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; D60409; D60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
                         11
                                  AMIDATION.
     MOD RES
                  11
FT
```

```
11 AA; 1268 MW; 3DBA7C37C9CB1457 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 9e+04;
                                                                              0;
                                                                  0; Gaps
                                0; Mismatches
                                                    0; Indels
             1; Conservative
            6 E 6
Qy
            6 E 6
Db
RESULT 60
TKN4 PSEGU
                                            11 AA.
     TKN4 PSEGU
                    STANDARD;
                                    PRT;
ID
     P42989;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
\mathbf{DT}
     Substance P-like peptide I (PG-SPI).
DE
     Pseudophryne guentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
RP.
     SEOUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; E60409; E60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
ΚW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                    1
                           1
 FT
                                   AMIDATION.
     MOD RES
                   11
                          11
 FT
                                   3A247C2CC9CB1AB7 CRC64;
     SEQUENCE
                11 AA; 1294 MW;
 SQ
                                   Score 1; DB 1; Length 11;
                            9.1%;
   Query Match
                           100.0%; Pred. No. 9e+04;
   Best Local Similarity
                                                    0; Indels
                                                                               0;
                                 0; Mismatches
                                                                   0; Gaps
              1; Conservative
  Matches
```

Db 5 D 5

TKNA CHICK

TKNA CHICK

STANDARD;

PRT;

11 AA.

```
RESULT 61
TKN5 PSEGU
     TKN5 PSEGU
                                   PRT;
                                            11 AA.
                    STANDARD;
     P42990;
AC
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P-like peptide II (PG-SPII).
DΕ
     Pseudophryne quentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OC
     NCBI TaxID=30349;
OX
RN
     [1]
RΡ
     SEQUENCE.
     TISSUE=Skin secretion;
RC
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; F60409; F60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
                  11
                                  AMIDATION.
     MOD RES
                         11
FT
                11 AA; 1293 MW; 3A247C2CC9CB1457 CRC64;
     SEOUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                               0;
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
             1; Conservative
            6 E 6
Qу
Db
            6 E 6
RESULT 62
```

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P19850;
AC
     01-FEB-1991 (Rel. 17, Created)
DT
     01-FEB-1991 (Rel. 17, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DΕ
     Gallus gallus (Chicken).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
OC
     Gallus.
OX
     NCBI TaxID=9031;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Intestine;
     MEDLINE=88204263; PubMed=2452461;
RX
     Conlon J.M., Katsoulis S., Schmidt W.E., Thim L.;
RA
     "[Arg3] substance P and neurokinin A from chicken small intestine.";
RT
     Regul. Pept. 20:171-180(1988).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; JN0023; JN0023.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION.
                  11
                        11
FT
     MOD RES
     SEQUENCE 11 AA; 1377 MW; 21487FE3C9D6C6C7 CRC64;
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
            1; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
  Matches
            2 R 2
Qу
              -
            1 R 1
Db
RESULT 63
TKNA GADMO
     TKNA GADMO
                                   PRT;
                                            11 AA.
                    STANDARD;
     P28498;
AC
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     Gadus morhua (Atlantic cod).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
     Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; Gadus.
OC
OX
     NCBI TaxID=8049;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Brain;
RC
     MEDLINE=92298992; PubMed=1376687;
RX
```

```
Jensen J., Conlon J.M.;
RA
     "Substance-P-related and neurokinin-A-related peptides from the brain
RΤ
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S23306; S23306.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                 AMIDATION (BY SIMILARITY).
FT
                        11
                11 AA; 1315 MW; 214860D759D6C6C7 CRC64;
SQ
     SEQUENCE
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches 0; Indels
             1; Conservative
  Matches
            3 K 3
Qy
              - 1
            1 K 1
RESULT 64
TKNA HORSE
                                   PRT;
                                            11 AA.
     TKNA HORSE
                    STANDARD;
ID
     P01290;
AC
     21-JUL-1986 (Rel. 01, Created)
     21-JUL-1986 (Rel. 01, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
DE
     TAC1 OR NKNA OR TAC2 OR NKA.
GN
     Equus caballus (Horse), and
OS
     Cavia porcellus (Guinea pig).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OC
OX
     NCBI TaxID=9796, 10141;
RN
     [1]
RP
     SEQUENCE.
RC
     SPECIES=Horse;
     Studer R.O., Trzeciak A., Lergier W.;
RA
     "Isolation and amino-acid sequence of substance P from horse
RT
RT
     intestine.";
     Helv. Chim. Acta 56:860-866(1973).
RL
RN
     [2]
     SEQUENCE.
RP.
     SPECIES=C.porcellus;
RC
     MEDLINE=90044685; PubMed=2478925;
RX
RA
     Murphy R.;
     "Primary amino acid sequence of guinea-pig substance P.";
RT
     Neuropeptides 14:105-110(1989).
RL
```

```
-!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A01558; SPHO.
DR
     PIR; A60654; A60654.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION.
     MOD RES
                  11
                        11
FT
                11 AA; 1349 MW;
                                  3E757FE3C9D6C6C7 CRC64;
     SEQUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
             1; Conservative
                                0; Mismatches
  Matches
Qу
            2 R 2
            1 R 1
Db
RESULT 65
TKNA ONCMY
                                    PRT:
                                            11 AA.
                    STANDARD;
ID
     TKNA ONCMY
     P28499;
AC
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P.
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
     NCBI TaxID=8022;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Brain;
     MEDLINE=92298992; PubMed=1376687;
RX
     Jensen J., Conlon J.M.;
RA
     "Substance-P-related and neurokinin-A-related peptides from the brain
RT
     of the cod and trout.";
RT
     Eur. J. Biochem. 206:659-664(1992).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S23308; S23308.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
```

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SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
    Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
KW
                                  AMIDATION (BY SIMILARITY).
                  11
                         11
FT
    MOD RES
                        1358 MW;
                                  214860DEC9D6D1F7 CRC64;
     SEQUENCE
                11 AA;
SQ
                           9.1%; Score 1; DB 1; Length 11;
 Query Match
                          100.0%; Pred. No. 9e+04;
 Best Local Similarity
                                                                  0; Gaps
                                                                              0;
                               0; Mismatches
                                                   0; Indels
            1; Conservative
            3 K 3
Qу
            1 K 1
Db
RESULT 66
TKNA RANCA
                                            11 AA.
     TKNA RANCA
                                   PRT;
                    STANDARD;
ID
AC
     P22688;
     01-AUG-1991 (Rel. 19, Created)
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Ranatachykinin A (RTK A).
DΕ
     Rana catesbeiana (Bull frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae; Rana.
OC
     NCBI TaxID=8400;
OX
RN
     SEQUENCE, AND SYNTHESIS.
RP
     TISSUE=Brain, and Intestine;
RC
     MEDLINE=91254337; PubMed=2043143;
RX
     Kozawa H., Hino J., Minamino N., Kangawa K., Matsuo H.;
RA
     "Isolation of four novel tachykinins from frog (Rana catesbeiana)
RT
     brain and intestine.";
RT
     Biochem. Biophys. Res. Commun. 177:588-595(1991).
RL
RN
     [2]
     SEQUENCE.
RP
     TISSUE=Intestine;
RC
     MEDLINE=94023216; PubMed=8210506;
RX
     Kangawa K., Kozawa H., Hino J., Minamino N., Matsuo H.;
RA
     "Four novel tachykinins in frog (Rana catesbeiana) brain and
RT
     intestine.";
RT
     Regul. Pept. 46:81-88(1993).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; A61033; A61033.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Tachykinin; Neuropeptide; Amidation.
KW
                          11
                                   AMIDATION.
                   11
 FT
     MOD RES
```

```
SQ
     SEQUENCE
                11 AA; 1311 MW; 200D60CC59D40AB7 CRC64;
  Query Match
                           9.1%; Score 1; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 9e+04;
             1; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            3 K 3
Qу
            1 K 1
Db
RESULT 67
TKNA SCYCA
ID
     TKNA · SCYCA
                    STANDARD;
                                   PRT:
                                           11 AA.
AC
     P41333;
DT
     01-FEB-1995 (Rel. 31, Created)
     01-FEB-1995 (Rel. 31, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P.
     Scyliorhinus canicula (Spotted dogfish) (Spotted catshark).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes;
OC
     Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes;
OC
OC
     Scyliorhinidae; Scyliorhinus.
OX
    NCBI TaxID=7830;
RN
     [1]
    SEQUENCE.
RP
RC
    TISSUE=Brain;
    MEDLINE=93292508; PubMed=7685693;
RX
    Waugh D., Wang Y., Hazon N., Balment R.J., Conlon J.M.;
RA
     "Primary structures and biological activities of substance-P-related
RT
    peptides from the brain of the dogfish, Scyliorhinus canicula.";
RT
    Eur. J. Biochem. 214:469-474(1993).
RL
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
DR
    PIR; S33300; S33300.
DR
    InterPro; IPR002040; Tachy Neurokinin.
DR
    PROSITE; PS00267; TACHYKININ; 1.
KW
    Tachykinin; Neuropeptide; Amidation; Neurotransmitter.
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SQ
    SEQUENCE
                11 AA; 1278 MW; 214860DEC9D6D867 CRC64;
                           9.1%; Score 1; DB 1; Length 11;
 Query Match
  Best Local Similarity
                         100.0%; Pred. No. 9e+04;
 Matches
            1;
                Conservative
                                 0; Mismatches
                                                   0; Indels
            3 K 3
Qу
            1 K 1
Db
RESULT 68
TKN PHYFU
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TKN PHYFU

STANDARD;

PRT;

11 AA.

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P08615;
AC
     01-AUG-1988 (Rel. 08, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Physalaemin.
DE
     Physalaemus fuscumaculatus (Neotropical frog).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Leptodactylidae;
OC
     Leptodactylinae; Physalaemus.
OC
     NCBI TaxID=8378;
OX
RN
     [1]
     SEQUENCE.
RΡ
     TISSUE=Skin secretion;
RC
     MEDLINE=66076612; PubMed=5857249;
RX
     Erspamer V., Anastasi A., Bertaccini G., Cei J.M.;
RA
     "Structure and pharmacological actions of physalaemin, the main
RT
     active polypeptide of the skin of Physalaemus fuscumaculatus.";
RT
     Experientia 20:489-490(1964).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
CC
         muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
     PIR; S07201; S07201.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     Pfam; PF02202; Tachykinin; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
KW
                                   PYRROLIDONE CARBOXYLIC ACID.
     MOD RES
                   1
                          1
FT
                  11
                         11
                                   AMIDATION.
FT
     MOD RES
                11 AA; 1283 MW; 3293693E59C33457 CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                           100.0%; Pred. No. 9e+04;
  Best Local Similarity
                                                                               0;
             1; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                   0; Gaps
 Matches
            1 A 1
Qу
              - [
            2 A 2
Db
RESULT 69
UF05 MOUSE
                    STANDARD;
                                    PRT:
                                            11 AA.
     UF05 MOUSE
ID
     P38643;
AC
     01-OCT-1994 (Rel. 30, Created)
DT
     01-OCT-1994 (Rel. 30, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of fibroblasts (P48) (Fragment).
DE
OS
     Mus musculus (Mouse).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC
     NCBI TaxID=10090;
OX
RN
     [1]
```

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RP
     SEQUENCE.
     TISSUE=Fibroblast;
RC
     MEDLINE=95009907; PubMed=7523108;
RX
     Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RA.
     "Separation and sequencing of familiar and novel murine proteins
RT
     using preparative two-dimensional gel electrophoresis.";
RT
     Electrophoresis 15:735-745(1994).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 48 kDa.
CC
FT
     NON TER
                  11
                         11
                                  E54835E5CAAABAFA CRC64;
                11 AA; 1328 MW;
     SEQUENCE
SO
                           9.1%; Score 1; DB 1; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 9e+04;
                                                                  0:
                                                                      Gaps
                                                                              0;
                                0; Mismatches
                                                   0; Indels
             1; Conservative
  Matches
            3 K 3
Qy
              1
Db
            1 K 1
RESULT 70
ULAG HUMAN
                                   PRT;
                                           11 AA.
     ULAG HUMAN
                    STANDARD;
AC
     P31933;
     01-JUL-1993 (Rel. 26, Created)
DT
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of liver tissue (Spot 118) (Fragment).
DE
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606;
OX
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Liver;
RC
     MEDLINE=94147969; PubMed=8313870;
RX
     Hughes G.J., Frutiger S., Paquet N., Pasquali C., Sanchez J.-C.,
RA
     Tissot J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
RA
     "Human liver protein map: update 1993.";
RT
     Electrophoresis 14:1216-1222(1993).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 5.5, its MW is: 34 kDa.
CC
     SWISS-2DPAGE; P31933; HUMAN.
DR
     Siena-2DPAGE; P31933; -.
DR
                          11
     NON TER
                  11
FT
                11 AA; 1219 MW; EDABD37F272DDB0A CRC64;
     SEQUENCE
SQ
                            9.1%; Score 1; DB 1; Length 11;
  Query Match
                          100.0%; Pred. No. 9e+04;
  Best Local Similarity
                               0; Mismatches 0; Indels
                                                                               0;
                                                                      Gaps
  Matches
             1; Conservative
             6 E 6
 Qу
             5 E 5
 Db
```

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